Personality and Performance in Education.

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Personality and Performance in Education:

A Study of Personality factors in Teaching.

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I

Introduction

There is a natural tendency to associate education with schools, colleges and similar establishments. As these function in distinctive buildings there is the further tendency to equate the quality of the education provided with that of the buildings. Old established schools may well have the advantage of age in the establishment of good traditions and high academic reputation. Modern schools in new purpose-designed buildings tend to enjoy more favourable material resources in terms of equipment as well as buildings.

Yet, if we really consider the matter, the best buildings and equipment are far less important than the teachers using these material resources. Some of the teachers who have had the greatest impact upon mankind, such as Socrates and Jesus, taught without depending upon books and buildings. This is not to say that modern subjects do not require specialist equipment and purpose-built accommodation. On the contrary, these are very necessary prerequisites for the most effective work to be undertaken. The point is rather that, given the same quality of material provision, what will determine the nature of the outcome will depend not only on the ability of those learning but on the quality of the teaching.

Teaching is an exceedingly complex activity. It involves both the person teaching and those taught. Most laymen and at least a proportion of those professionally involved in education appear to see the process as essentially a transmission of information. The analogies are pouring information into the child like liquid into a container or

Preface

The growth of interest in education and the increase in capital investment for buildings and equipment, should not blind us to the fact that the quality of education depends upon the quality of the teaching.

The personality of the teacher is seen as the most important factor in this teaching situation, although many other factors, including the personality of the learner, are considered. The text contains an extensive review of research in the field of personality and performance not readily available to most students of the subject, especially in Asia, as most of the work in this field has been undertaken in the developed countries of the West.

When one is brought up in a particular set of environmental circumstances, one becomes inured or desensitized to it. A foreign visitor on the other hand may be struck immediately by certain features which do not impinge upon the awareness of many of the indigenous population.

As a specialist in the field of psychology in its application to education, I have been struck by many aspects of the social scene generally and with the assistance of departmental colleagues have mounted a series of research programmes to investigate these phenomena. In teaching the subject of 'Educational Psychology' to undergraduate and postgraduate students, I have been able to confirm what previously had been an impression. That is, that most teaching currently undertaken in Bangladesh depends upon the rote learning of prescribed tests and their faithful representation in examinations.

The Education Commission, letters to newspapers and speakers at Seminars, all suggest that a new era in Education is dawning when other considerations will also be seen as important. This, therefore, represents a contribution to the discussion in which theory is supported by the empirical evidence available.

in John Locke's terms of writing upon a Tabula rasa. A more refined theory, which has its origin in outdated Faculty psychology, sees the process as a formal 'discipline'.

Although there are many theories relating to learning, it is generally accepted that the learner is not passive. In the learning process he will be engaged mentally in the selection of pieces of sensory data which he attempts to relate to what he already has ~~available~~ available. The act of selection itself will have involved him in complex activities involving attending to one thing rather than another: this may be illustrated perceptually by ambiguous figures where some people identify a figure and ignore the 'background' while others make the opposite selection which they ~~likewise label~~ similarly label as figure and background.

While it is true that learning involving mental activity does occur without the need for physical activity, there is ample evidence that in many instances gross bodily movement is desirable, if not essential. This has been found to be the case with children up to the primary stage, as well as with slower learning children in secondary school. Work with the Nuffield science project has suggested that more effective learning occurs with able children also, when they are actively involved in a physical sense.

Clearly it may very well depend upon the subject as to how much physical activity is necessary. The theory of dancing, driving or of teaching may be learnt from a book. This may be a very desirable prerequisite but everyone who has acquired these skills, in however modest a fashion, will recognize that the real learning occurred when the attempt was made to put the theory into practice.

Various predispositions will largely help to determine the outcome of learning on the part of the learner. Inherited intellectual capacities or defects, those previously developed or allowed to atrophy, interests and attitudes, the pressures from one's family, peer group and the economic, social and cultural pressures experienced, are all important factors. But, as ~~with~~ the provision of similar material resources does not guarantee similar results, neither does any additional attempt to work with matched groups, even if the material taught is also similar, unless the contribution of the teacher is also considered. Assuming that it is possible to produce two matched groups of learners studying the same material one teacher may clearly be more effective than a second.

Teaching always involves the teaching of a body of content. One cannot teach unless one is teaching something. This 'something' may be a traditional subject, such as Latin, or mathematics. It may be a more modern subject or group of subjects, such as environmental studies, liberal studies or education. Moreover as well as a certain body of content which involves information, there will almost certainly be a number of associated skills, processes and activites related to the body of content. One might consider whether some subjects, more than others, have greater information content ~~than others~~ and whether the complexity of the modes of feeling as well as thinking are as great in some as in others.

When we think of a teacher we have a notion of a person equipped for the work of teaching. By this we mean first and foremost that he , or she, has sufficient command of the material appropriate to the subject ~~appropriate to~~ and the level at which it is to be taught. Ideally one would wish every teacher to have profound knowledge of the subject.

A good case can be made out for a policy which enables the most highly qualified teachers to teach infants. At this stage of development questions of a fundamental nature are often asked, which are beyond the capacity of the average teacher to handle more than merely adequately. Unfortunately, this ideal is not a practical proposition in ~~either~~ advanced industrial societies any more than it is in developing countries. In both situations the most highly qualified are generally required to staff courses for older and more advanced learners.

At one time teacher-training establishments concentrated considerable attention on the techniques of teaching. Often they had a Master of Method who was the expert on teaching methodology. Moreover students would be required to demonstrate their proficiency in using the appropriate method before staff and fellow students. Some of the older Colleges of Education contain demonstration rooms, with a classroom for children, and accommodation ~~with~~ sometimes in the form of a gallery for staff and students. In such a situation the final teaching examination was indeed an ordeal to be faced.

There has been a gradual shift of emphasis. Both Colleges of Education and University Departments of Education tend to attract considerable criticism from practicing teachers as well as students because of this. They are accused of paying insufficient attention to matters of technique and concentrating too much on academic subjects. By this is meant that there is over-emphasis on studying the subjects which the student will teach at a level beyond that which ~~it~~ is thought appropriate. Allied to this is the criticism that some colleges provide academic courses in psychology and sociology , not to mention history of education, or philosophy,

which are seen as of academic interest by some, but not of direct practical use.

While there may be some truth in a number of the criticisms in specific cases, it does appear as if some of the critics ascribe a high degree of ineptitude to those in charge of teacher training. With regard to the first criticism, mention has already been made of the desirability of teachers of even the very young, having the most profound understanding of their subjects possible. To elaborate a little further, it can rightly be argued that by immersing a student in a study in depth he will become more confident in handling it and will also come to appreciate something of the principles and basic processes involved in it. Contrast, for example, an immature learner who having followed a short course in a subject talks of having 'done' a subject. In one sense it is true that this simply means that the course itself has been completed. In another it all too frequently seems to indicate that the learner feels that he knows all that there is worth knowing about the particular subject. The mature learner, or one who has studied a subject in some degree of depth, may know more about it than many others. But at the same time he is likely to be all too aware of his own limited knowledge. Whether he chooses to adopt a scholarly humility, or an intellectual aggressiveness as a cloak for this sense of inadequacy is another story, which is nonetheless of interest to students of personality assessment.

The criticism that courses on academic social science subjects are more frequently provided than applied couses relating to specific techniques may well be valid. Students entering teaching feel very vulnerable and lacking in expertise.

They frequently have a strong expectation that they should be told specifically how to teach. This is a natural and quite proper expectation. Colleges should and generally do provide courses within a variety of patterns concerned with technique. Not infrequently this will be dealt with on the basis of the specialist subjects which the student will later teach. In some cases no doubt the stress on the content of the material tends to exclude adequate coverage of the techniques of presentation.

The reason that general courses, rather than method courses in the old sense, have developed is that we now have a better appreciation of the factors involved in the learning process. Specific techniques tend to work in narrowly prescribed situations. Because of our increased awareness concerning the multiplicity of factors involved in the learning process we tend to concentrate upon general principles, at least within psychology courses, on the assumption that specifics are covered by the appropriate subject or , in the case of primary teachers, primary school specialists.

Some people see only a semantic difference between the concept of training and education. Although 'teacher-training' is still in current usage, the change in terminology from Training-colleges and Training Departments to Colleges and Departments of Education has certain implications. The concept of training suggests the inculcation of a number of appropriate responses within a fairly narrowly prescribed range. That of education implies the possibility of a far greater depth as well as of greater range of response, not only to situations which are anticipated but to those which may develop. To take a simple but specific example, what will work with one teacher will not necessarily work with another: ~~similarly~~,

what a teacher finds to works with one class does not necessarily work with another, similar, one.

In this book we are concerned with the questions relating to personality assessment and especially teaching performance. Every worthwhile training course includes material which invites the student to consider his aims in teaching. Apart from questions of economic necessity and the attraction of long holidays what are his motivations in entering teaching? No doubt the answer will indicate to some degree the desire to obtain some kind of personal satisfaction. The precise manner in which this will be expected to be obtained will however vary considerably. To what extent will it depend upon pupils' examination success or academic progress? How much of it will stem from evidence of pupils' interest in the subject taught, irrespective of proficiency? To what extent will some measure of their personal or social development count? What other factors, such as the esteem of colleagues, or the head teacher, be important?

These and related questions need to be considered. Are all subjects equally satisfying to teach from the point of view of teachers? Are they all as relevant to the needs of pupils? Are some subjects important even if they pose problems both for those teaching as well as those taught?

Once such questions are raised the whole basis of the aim of education and the role of the teacher starts to appear worthy of consideration. From our point of view it reminds us that teachers are involved in an activity which contributes to the education of pupils or students in at least two ways. On the one hand there is the specialist curriculum material which has to be dealt with , even at

primary school level. On the other hand there is the array of attitudes and interests which our formal and informal dealings with pupils stimulate.

In this sense, what a teacher is, how he is perceived as a person as well as what he says or does, knows and does not know, all influence the outcome of his teaching performance. It is in this global sense that the term personality is considered , although it will be apparent that some researchers and theorists in the field of study have used the term in more restricted or in more specialized ways.

A recurring criticism of much of twentieth century education is that it is too academic, intellectual and bookish. For this reason one might suppose that these would have been selected for special investigation in studies of teaching performance. In fact, although some attention is given to this factor, especially in studies which have centred upon the learner, far more attention has been devoted to the conative, or those aspects of personality which are not primarily intellectual, in the case of studies of the teacher. Both aspects will be considered in due course.

To some extent the relative neglect of intelligence as a factor may be because this is taken for granted. Those who enter teacher training have themselves been selected partly because they have succeeded in surviving a series of examinations, which are thought to test the intellect. While this tends to underestimate all the other factors contributing to academic success, it does tend to produce a selected group with higher than average intelligence.

At the same time it would be true to say that very many studies of teaching tend to assume a similarity of

intelligence even when tests reveal that the distributions of scores actually obtained from a given group of student-teachers show considerable divergences. It is at least conceivable that with the expansion of teacher-training the distributions may ~~be becoming~~ become even greater. This could well mean that a teacher in a non-streamed primary or comprehensive school could be dealing with a substantial proportion of pupils of a higher level of intelligence than himself. At the same time the concentration of studies and the weight of empirical evidence available suggests that, given a basic intellectual level, other personality factors contribute heavily to successful teaching performance. To the question of what is meant by personality we now address ourselves.

II

The Concept of Personality

Popular usage has tended to substitute 'personality' for the word celebrity. Thus, when a person excells in some field of endeavour there is a tendency to refer to him as 'a personality'. A different position exists in popular terms when a person lacking social skill or adroitness is often said to have 'no personality'.

Clearly such popular usages are very superficial. Some people are famous because of a particular gift or skill, in playing football, singing or other achievement in some field of human accomplishment, but are tounge-tied and gauche in ordinary conversation. In popular terminology such a person might be described as 'a personality' who has 'no personality'.

Psychological use of the term also tends to vary. In some areas of philosophical psychology it may embrace not only the physical person and his intellectual, emotional and social aspects but also concepts like spirit and soul. In other areas one or more of these aspects may be excluded. A particularly common approach is to confine the term to the conative, emotional and social aspects of the person.

Allport (1937) produced one of the most comprehensive classifications of the numerous ways in which the word has been defined and used. Moreover he makes it clear that the term may be entered under several different categories, rather as the same article may be classified by its shape, colour, material, strength, utility and so on. His main classification is into seven groups:

1. Etymological, or early history of the term.
2. Theological meanings.
3. Philosophical meanings.
4. Juristic or legal meanings.
5. Sociological meanings.
6. Meanings based on external appearance.
7. Psychological meanings.

With regard to what is essentially the psychological approach to defining personality, but which of necessity embraces some of the other meanings, seven further categories appear to have emerged from Allport's analysis and these tend to be followed by subsequent writers. Hall and Lindzey (1957) and Bischof (1964) provide excellent reviews.

1. Biophysical: traditional evaluation of people on the basis of physical and social qualities.
2. Biosocial: the assessment by other people of the impact they perceive that the subject's personality has upon them or others.
3. Uniqueness: the notion, allied to the psychology of individual differences, that each person is unique.
4. Integrative: the idea that personality consists of the particular ways in which sensory data , ideas and emotions are organized and integrated.
5. Differential: with the stress upon the salient feature or features which make a person different from others, in at least some respect.
6. Omnibus: some theories do not lend themseves to inclusion in the above categories, for example certain symbolical, mathematical and holistic ones.

Frustrating as it may be for the student of this subject, there is no single comprehensive theory which takes into account all existing findings and notions concerning personality. Indeed, Hall and Lindzey argue that this is not yet possible as the relative importance of various theories has yet to be established conclusively. A premature

synthesis would be unhelpful, even if it were possible, and at the present time the expression of the theories is insufficiently clear and the conflicts between them too great for this to be a valuable enterprise.

One may illustrate to some extent the complexity of the situation by reference to the approach adopted by some of the most famous psychologists studying personality. Bischof classifies them thus:

Biophysical-Biophilosophical	Biosocial	General and Integrative
Freud	Adler	Rogers
Jung	Sullivan	Allport
Murray	Horney	Murphy
Sheldon	Moreno	

Whether or not the people concerned would agree with the groupings is another matter.

On the question of how personality theories might be evaluated several suggestions have been made. Wolman (1960) suggests that the criteria should include the following:

1. Internal consistency.
2. Testability.
3. Utility.
4. Clarity.
5. Contribution to predictability of behaviour.

This last point, concerning human action is of particular interest to us and is also made by Sears(1951). Before turning to the empirical evidence concerning such action in the field of education a few words about the main lines of approach to personality assessment may be in order.

Personality Assessment

From what has been said already it will be evident that the concept of personality is very complex and the methods of studying the subject vary considerably. Different researchers tend to evolve different theoretical structures to account for particular manifestations or interpret them from particular theoretical viewpoints. No one particular viewpoint is reflected exclusively in this particular text, except that the selection of studies for detailed consideration assumes that certain aspects of personality are capable of being assessed, especially in certain performance situations.

In personality assessment work generally three major approaches are employed:

a) Subjective techniques, where the subject reports upon his personal interpretation of a situation:

b) Objective techniques, where quantification usually plays a larger part in the situation:

c) Projective techniques, where the subject is asked to project his interpretation of stimulus material which is so designed that 'correct' answers cannot be guessed at readily.

Within the context of personality assessment in education the first two approaches are more frequently used than the third. As well as questionnaires, which may fall into categories (a) or (b), depending on how well they are made and their responses analysed, two related concepts have enjoyed wide currency, types and traits.

From the time of Hippocrates in fifth century Greece B.C. limited numbers of human categories or types have been postulated. For example the four-fold category based on the theory of humors remained in vogue until the advent of

modern medicine.

Humor	Personality Type	Qualities
Yellow bile	Choleric	Irascible, angry.
Black bile	Melancholic	Depressed, sad.
Phlegm	Phlegmatic	Sluggish, apathetic.
Blood	Sanguine	Active, cheerful.

Although such ideas may sound very dated modern notions based on physiological as well as psychological characteristics make use of typing. Kretschmer's work on body build, Freud's ideas on sexual development and Jung's concepts of introversion and extraversion are some of those that have enjoyed currency.

Basically Types represent a pigeon-holing device with an origin outside the individual: Types are labels originating in society's description of personality, although some theorists, such as those alluded to in the last paragraph, employ the terms inside a sophisticated conceptual framework.

An alternative approach which is frequently employed is the Trait approach. Traits are seen as persistent patterns of behaviour within an individual. Basically they are internal and may not be easily visible to another person.

According to some conceptual models, traits consist of a large number of behavioural characteristics, while the number of types is more limited. According to such models personality is seen as a pyramidal structure with the main type consisting of subordinate type characteristics and each of these made up of associated traits.

Although such models may not be considered adequate they do suggest that a sharp distinction between types and traits is hardly possible except in theoretical terms. Both the type and especially the trait approach feature prominently in studies of personality performance in education.

In our introduction it was indicated that in this text, which covers a broad range of approaches to personality and its assessment, the term would be interpreted widely. While it does not concern itself explicitly with theological concepts it does not exclude these and neither does it confine itself to the con-cognative domain.

CONCEPTS OF THE TEACHER'S ABILITY

In our discussion of personality we determined that for our purpose , in effect, that the term would represent the sum total of neuro-psychological activities whether manifested in the intellectual or emotional systems. In rather the same manner we have been content to talk of "The Teacher" for although this is another abstract conception it conveys sufficient meaning for the purposes of our discussion up to this point.

Difficulties now arise when we consider the manner in which experts - defined as those who may have special knowledge, experience or training - may hope to pass evaluative judgments on the quality of the work of the particular individual teacher. What in fact does "Teaching Ability" mean? Does it encompass all the activities in which a teacher may engage from time to time or does it refer only to those in which the teacher is most frequently engaged? Clearly the answers to these questions depend on the outlook of the individual and different studies have attacked different aspects of the questions.

If we accept the notion of the teacher as a person who is employed to teach and whose work may include all kinds of activities involved in the transmission of knowledge and ideas (the preparation, presentation and assessment of work, organization, keeping of records etc., etc.) as well as the formation of attitudes and moral qualities, then we have

a stipulative definition which agrees to a large extent with the general conception of the "Teacher".

This leaves us with the problem of defining "Teaching Ability". In the discussion of the views of the theorists it has been evident that although most have embraced the idea of a generalized teaching ability they have tended to concentrate upon the particular qualities or capacities which they considered of prime importance. It should not surprise us then to discover that in this section which discusses the results of experimental enquiries that the same pattern should be followed and extended logically: thus the early enquiries tend to concentrate upon tabulating general statements, the late ones to concentrate upon selected aspects e.g. the acquisition of skill or knowledge on the part of the pupil. (This is discussed under Pupil Gain and Pupil Change. P. below).

Kent (1920) saw the difficulty when rating scales were to be applied and provided a classification of some of the various factors which could be selected. From the point of view of the teacher abilities relating to organization, administration and social work: from that of the pupils, those relating to his knowledge, skills, attitudes and habits.

Many variations on this theme occur in the literature in the field for example in the following year Brooks (1921) listed the qualities necessary for ~~the~~ optimum teaching performance:

1. Natural aptitude for the work.
2. Managing ability.
3. Method and technique.
4. Interest and industry in the work.
5. Personality.

It is very evident that teachers may be seen in a very different light by those who are still pupils and by those who were pupils some years ago. The general view of those in authority is that the pupils' views are likely to be distorted and on the face of it their views are of little value in spite of the fact that they are people most in contact with the teacher qua teacher.

Evans (1952) remarked in her comprehensive review of researches in the field of attitudes that "It is unlikely that any responsible person would be willing to accept the opinions of pupils as the sole criterion of a teachers' efficiency." (P.44). This is a perfectly valid point and a number of investigations have concerned themselves with this very problem of the value of the pupils' opinions. Yet some researchers, like Knight (1922), working in three sample towns in Massachusetts found what he claimed to be a high degree of agreement between the scores of teachers who were rated by their fellow teachers and their supervisors as well as their pupils.

The hesitation which most of us would feel in accepting the judgment of children about their teachers probably stems from notions such as the one that those children who receive high marks from a given teacher will tend to rate that teacher comparatively highly. But Blum (1936) working with college students found no relationship between the grades received from instructors and the ratings which they were prepared to give to them. On the other hand Bryan (1937) working with children in Secondary school did discover a tendency for those with low marks themselves to award lower grades to their teachers than were awarded by pupils receiving higher marks: in spite of this, little general relationship was discovered between pupils' performances and their estimates of their teachers.

A point which did emerge from this study by Bryan may illustrate

another variable which has attracted some attention in this field from almost the very beginning, that of sex difference. Bryan found that girls tended to rate women teachers higher than boys did: similarly boys rated men teachers higher than did the girls. Herda (1935) had been another to report little sex difference in teacher preference but where it did operate, it seemed to be in favour of men.

Returning to our main theme of the moment, Bryan's findings appear to be in direct contradiction to the popular view we expressed above regarding the value of pupils' opinions. In two respects the pupils' ratings were found to be superior to those of the administrators: the agreement between the various pupil groups was closer than with the administrators and they were relatively more varied in their opinion from item to item, which is another way of saying that the pupils appeared to be less vulnerable to "halo effect".

THE QUALITIES OF THE TEACHER: THE VIEWS OF PUPILS

By the beginning of the twentieth century serious attempts were being made by a number of research workers to investigate the personal qualities of teachers. Many of these sought to consider the problem from one angle alone, namely by canvassing the views of the teachers' pupils.

One of the earliest large scale investigations was that carried

which had appeared since 1905, that the most common criterion in use for judging teaching ability is the judgment of experts. This is hardly surprising since the experts constitute the examining bodies who select the students, and also decide what their standards are at the end of the course: ~~at one time too,~~ the selfsame individual experts may also make the follow-up assessments in the schools.

Yet, it would give only a partial picture if we were content to accept the judgment of experts, for other interested individuals might be consulted with advantage in addition to the pupils under the teacher at the time of the enquiry. Stott (1950) pointed out that parents set up their own criteria for judging teaching ability and these may include a consideration of -

1. the results of examinations:
2. the capacity to exercise discipline:
3. the character and personality development of children:
4. the way in which backward or problem children are handled.

We are thus faced with the fact that there are many kinds of criteria which may be used to define success and although this is true of many kinds of work it is particularly so in the case of complex ~~work~~ activity ~~such as 'Teaching'.~~ represented by the omnibus term 'teaching.'

We turn now to a more detailed consideration of some of the conclusions reached by various researchers ~~in~~ using some of these approaches to measuring teaching ability.

out by Kratz (1896). In this, 2411 children ranging from the 2nd to the 8th grade inclusive were asked to recall all their teachers. From them they were to select the one who had helped them most and they were then asked to provide answers to the following three questions:

1. In what way did she help you most?
2. Do you recall any special word or act of hers which greatly helped you? If so, what is it?
3. Will you write, in a half a dozen sentences, a description of the best teacher you have had without naming her.

In the general discussion of the replies it was stated that most of the replies included statements to the effect that the 'best teacher' was generally said to be -

(a) Helpful with studies;

(b) Of good personal appearance;

(c) Good or kind;

(d) Patient and polite.

It would be unjust to criticize the early research workers too harshly for what they lacked in tools for analysis they made up for in enthusiasm and if their questions were naïve they boldly tackled large samples. The practice of accepting pupils' views persists, but with the passage of time the accent has gradually moved until today, when the replies may still be used to supply information about a teacher, for example, by means of the technique known as "teacher change", but they may also be used to provide information about the pupils themselves. Thus, while we may for completeness, consider a number of other early studies which have apparently accepted statements made by third-parties about teachers at their face value, it is not suggested that the views expressed in them should be given too great weight.

The next contribution in this field was by W. F. Book(1904) and (1905). In the former he had considered the problems of "why pupils

drop out of High School" and had concluded that in the regions of 10% dropped out of courses of study because of their antipathy towards certain teachers. Where this had happened the pupil's typical statement was that the particular teacher lacked sympathy and understanding.

In the latter, Book (1905) discussed in rather general terms 1067 essays written in High School on a topic which must have read "Some Sympathetic Teachers I have had, or the reverse". Whether all wrote precisely on the same topic or whether there were more than one is not too clear from the report. The results too were handled in very general terms and although they were discussed at some length under such headings as "The Teacher's Character", "Their Qualifications" and "What they did", little in the way of quantified results were produced.

After an interval of just over a decade the theme was again explored by Bird(1917) who asked pupils to try to recollect the "best" teacher they had ever had and then to try and describe "what are the five or six qualities of the best teacher you ever had?"

The ten qualities receiving the largest average percentage of votes were:-

1. Fairness
2. Kindness
3. Sociability
4. Sense of humour
5. Good temper
6. Ability to discipline
7. Neatness
8. Patience
9. Adequate preparation
10. Ability to impart information

(In the case of the girls' "Kindness" came an easy first)

Amongst the faults which these pupils condemned were:-

Favouritism, hypocrisy, sarcasm, lack of sympathy, lax, easy methods and lack of confidence in pupils.

A comparison of these essay type answers with those derived from children in Germany became possible after the work done there by

Keilbacker (1932). In this study 3,967 pupils aged between 10 and 20 were asked to write an essay on "What I would like my teacher to be". The material was again classified according to the frequency of mention of the teacher's sex, age, outward appearance and so on. What is of particular note in this study is that the title frankly accepts the notion of an idealized teacher - something which most earlier research workers were probably getting reports about, from their subjects without apparently being aware of it.

In an M.A. thesis on The Personal Relationship in Teaching, Hollis (1935) used the questionnaire technique with a sample of 8,043 children aged 11-18. Part of this questionnaire included a list of 7 qualities (derived to some extent from some of the studies reviewed in this section). These the children were asked to list in order of preference. The order in which they were given to the pupils is indicated on the left below, the order of popularity is indicated by the ~~pupils~~ numbers on the right.

A. Has wide interests and refers in his lesson to facts of every-day life outside the actual subject. 6.

B. Is firm and keeps strict discipline. 7.

C. Is friendly and sympathetic and encourages pupils to do their best. 2.

D. Is very just and fair. 3.

E. Allows pupils to ask plenty of questions and put forward their own ideas. 5.

F. Has a sense of humour. 4.

G. Explains all difficulties patiently, giving pupils time to understand points one by one. 1.

Hollis concluded that pupils tend to like personal, friendly relationships to exist with teachers: teachers are liked for specific qualities they possess and this often transfers to subjects they teach. Pupils also were said to like discipline "arising from respect for the

teacher" and appeared to exercise a fair degree of discrimination in their willingness to accept punishment for bad conduct and their reluctance to accept it for bad work.

The possibility that children of different ages or in different kinds of school might have different conceptions of what constitutes good teaching was investigated by Bryan (1937). In this investigation pupils in Junior and Senior High Schools were asked to rate teachers on ten aspects of teaching as well as on teaching ability generally. The results showed considerable differences between the two groups.

Junior High	Senior High
1. Ability to explain clearly	1. Amount pupils are learning
2. Amount pupils are learning	2. Amount of work teacher does
3. Sympathy	3. Knowledge of the subject
4. Amount of work teacher does	4. Pupil liking for the teacher
5. Knowledge of the subject	5. Ability to explain clearly.

Tiedman (1942) produced two lists of the qualities most liked and disliked in teachers from a sample of 450 Junior High School pupils:-

Liked	Disliked
Friendliness	Autocratic
Helpfulness	Sarcastic
Clearness in exposition	Threatened punishment
Understanding of children and problems	Disagreeable personal characteristics
Fairness	Favouritism
Sense of humour	
Neatness	

Ward and Greaves (1964) reported on this work with 251 Junior school children in their fourth year drawn from two Leicestershire schools. The children were orientated away from their particular class teacher of the moment and were then presented with a list of 20 pairs of antonyms: it was intended that having read six short

neutral statements about a Junior School Teacher and written a short essay about the person visualised that the antonyms would relate to this conceptualized teacher.

The results were analysed according to sex and school. The conclusion arranged the terms in descending order of frequency of mention:

"The generalized stereotype of a teacher which is produced from the total information gained in the survey is an image of a happy, clever, well-dressed, knowledgeable, tidy, solvent, interested, humourous, impartial, friendly, changeable, sociable, plain, patient, loud-spoken, interesting, strict, easily angry person who does not go to church".

The Young School Leavers (1968) showed that where pupils complained of feeling bored with lessons that they, rightly or wrongly, attributed this to a failure in the performance of their teacher (p.66-67.).

In an analysis of the opposite situation where pupils enjoyed certain specific subjects which they themselves nominated, Jenkins (1972) found that 11% of boys and 13% of girls in a sample of 546 fourth and fifth form pupils, drawn from several hundred schools, attributed their choice of the subject to a personal liking for a teacher and the way he taught the subject.

THE QUALITIES OF THE TEACHER : THE VIEWS OF STUDENTS AND ADULTS

In the very first volume of the "British Journal of Educational Psychology", Cattell (1931) attempted to draw together what previous studies had discovered in this field. After summarizing the work of Book, Raymert and Kratz he concluded that the student's view of the ideal teacher is expressed by reference to the following qualities:-

1. Kindness
2. Sense of humour (cheerfulness)
3. Open mindedness (justice)
4. Sympathy and tact
5. Self-control
6. Personality & Will (leadership)
7. Outside interests
8. Perseverance (Patience)
9. Orderliness (clarity)
10. Presence

What is of particular interest in Catell's study is that he goes beyond the view of the teacher as seen by one group of observers and derives information by means of questionnaire from various groups of assessors - administrators, inspectors, lecturers etc., on the qualities of good young and mature teachers. The various lists of qualities were analysed and the comprehensive one constructed as follows:-

1. Intelligence
2. Physical Health
3. Presence
4. Self Control
5. Personality and Will
6. Sense of humour
7. Kindness
8. Open mindedness
9. Sympathy and tact
10. Enthusiasm
11. Perseverance
12. Enterprise
13. Conservation
14. Alertness of mind
15. Orderliness and Precision
16. Idealism
17. Outside interests
18. Knowledge of subject
19. General culture
20. Social fitness
21. Knowledge of psychology
22. Classroom techniques

Cattell then reclassified these according to what he found to be their importance and listed twelve qualities so that the first six were representatives of qualities which were twice as important as the succeeding six.

1. Personality and Will
2. Intelligence
3. Sympathy
4. Open mindedness
5. Sense of humour
6. Idealism

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7. General Culture
8. Kindness
9. Enthusiasm
10. Knowledge of Psychology and Pedagogy
11. Classroom technique
12. Perseverence

Two points in particular may be made with convenience at this juncture. The first, that it is interesting to note that Cattell's concluding list gives such prominence to personality qualities (in

addition to that termed "Personality and Will"). ~~It was this same subjective observation which prompted the present investigation.~~

The second point is that Cattell's observations pinpoint the fact that different groups i.e. pupils and administrators will frequently have different conceptions of what constitutes the ideal teacher. Moreover, as Jersild (1940) maintained it is possible that children and adults generally judge teachers in different ways. ~~It~~

It is evident that there is at least a logical possibility of there being a difference between the views of those who are pupils and those who were pupils. This could be accounted for in terms of differences in motivation, maturity and experience. Certainly casual observations suggest that most adults have a higher regard for schools and all that is associated with them than do the pupils who attend them.

In exactly the same pattern as Kratz, Bell (1900) asked 1031 students of education and pedagogy to recall all their past teachers to select the one which they considered to have done them most good and then to describe this teacher in terms of "both physical and mental traits". They were also asked to comment upon the teacher they disliked the most.

The replies were listed under a number of headings.

1. Moral influence;
2. Intellectual influence;
3. Personal interest in pupil, kindness, encouragement, sympathy, politeness etc.;
4. Self reliance;

5. Social graces.

Dolch (1920) set an essay entitled "My Best High School Teacher" to 82 students who were embarking on their first year in University. This researcher was apparently a teacher of literature and the analysis consisted of simple listing of the themes and a statement of the number of times they occurred as follows:-

1.	Know how to teach	69
2.	Was interested in students	50
3.	Had good discipline	40
4.	Knew his subject	39
5.	Made work interesting	38
6.	Was good natured	31
7.	Had broad education and interest	23
8.	Was interested in student activities	20
9.	Was fair	15
10.	Was socially popular	11
11.	Had an attractive personality	10
12.	Was stern	9
	Was practical	9
	Had a good character	9
13.	Had a sense of humour	6
	Compelled attention by students	6
14.	Trusted students	4

Witham (1914) concentrated on a consideration of what mature adults considered important in schools. He asked 50 Educationists to indicate what they considered to be the relative importance of various factors to the efficient running of a school. Although a number of factors were given none was rated at higher than 10% while the contribution of the teacher was given a rating of 60%.

The weaknesses in making subjective estimates of others was noted in this field by Knight (1923). The main theme of this

investigation was the distortion produced on estimates by the influence of the "Acquaintance factor". Knight concluded that supervisors tend to overrate teachers as compared with the normal curve and this tendency is increased where the assessors have known the teachers for a prolonged length of time.

Conversely Corey (1933) made the interesting point that distortion of judgment could be reduced by canvassing the views of those who know the teacher well rather than by watching him teaching. This may well avoid the problem of causing the teacher's performance to vary drastically in an examination situation, but it does not provide a solution to the problem of who really does know the teacher well.

Another study which sought to examine the characteristics of teachers "liked best" as "disliked most", as in the earlier studies of Kratz (1896) and Bell (1900) was that of Jersild (1940). In this late study there was the further analysis of the views expressed severally by children and adults. It was found that, whereas the former tended to judge teachers in terms of their specific characteristics as teachers, the latter tended to evaluate them in terms of quantities desirable in any walk of life. In other words the adult views tended to be more generalized and abstract whereas those of the children were more particular and concrete. The findings fit equally well into the schemata of what is known about thinking in terms of developmental psychology and the psychology of learning.

In order of importance, the qualities of the best liked students derived by Jersild from students were:-

1. Human qualities as a person;
2. Physical appearance, grooming, voice;
3. Characteristics as disciplinarian or class director;
4. Participation in pupil activities;
5. Performance as a teacher, teaching;

6. Miscellaneous.

In an attempt to throw greater light upon the question of the time at which pupils' opinions of their teachers might change Royce and Bryan (1944) investigated the opinions of children during the first five years after leaving school. They found that during this time little change occurred and where they did they were usually brought about by subsequent contacts with their teacher.

Not all studies have concerned themselves with the opinions of students regarding school teachers, but some have enquired into student opinions of college teachers. Typical of these is that of Geyer(1946) who obtained a list of desirable qualities in college instructors from one group of senior students. This was then ranked in order of preference by four other groups and the results correlated which produced measures of agreement between these groups ranging from 0.53 to 0.83.

The qualities listed by the students were as follows:-

1. Knowledge of subject matter
2. Personality to put the course across
3. Fairness or impartiality
4. Ability or skill in teaching and organizing subject matter
5. Ability to get along with students
6. Sincerity and honesty
7. Sense of humour
8. Appearance

Drucker and Remmers (1951) investigated the question of whether alumni and students differ in their attitudes towards instructors. They were asked to consider what personal traits were desirable in instructors and then to list these in order of importance. There was general agreement between past and present students in that seven of the ten qualities were given the same prominence by both groups.

Jensen (1951) analysed and classified the reports of 144 experts on 500 critical incidents in the behaviour of successful and unsuccessful teachers: these were given as follows:-

1.) Personal Qualities (a) Optimism (b) Fairness (c) Self-control

2.) Professional Qualities (a) Knowledge of subject matter and techniques of teaching

(b) Ability to get student response

(c) Business-like approval

3.) Social Qualities (a) Sympathetic, understanding

(b) Democratic

(c) Friendly, commending

(d) Ability to judge reactions of others

In each of these categories the successful teachers tended to be indicated as behaving in a superior fashion to the unsuccessful teachers.

In conversation, people often attribute a course of action they have taken to the influence of a particular teacher. Recently, Briggs (1959) has suggested that the attitudes engendered by teachers may persist in time to such an extent that they influence the choice of subject later, and instances the fear of mathematics as being a transfer from a fear of a teacher.

Students in training are often critical of their courses and many teachers remain critical of their college experiences after they enter the profession e.g. (Othen) 1967. But many appear to be reasonably satisfied with their courses according to Charlton, Stewart and Paffard (1960) and it may even be that, as Scott and Brinkley (1960) maintain, the attitudes of student teachers undergo changes during training and the degree of change in a favourable direction may be influenced by the favourable attitudes not only of college staff but of the teachers they encounter on teaching practice.

CHAPTER VI

TEACHING ABILITY AS MEASURED BY PUPIL GAIN

A number of research workers have sought to discover a method utilising the pupil's reception of the impact of the teacher while, at the same time, eliminating the subjective quality involved in collecting pupil's opinions. Theoretically, the proposals in essence have entailed measuring the pupil's work before a teacher begins work with them and at the end of the specified time to remeasure them and to attribute the resulting gain (or decrease) in score to the impact of the teacher. Usually the measurement would be applied to growth of knowledge and skill, but as Barr (1935) argued, changes in attitudes and ideals should also be taken into account in measuring teaching ability in this way. Thus, on the one hand there have been those such as Buckingham (1920), who have searched for a simple straightforward method of assessing pupil change and those from a slightly later period like Coy (1930), who have agreed the need for experimental and statistical controls.

The criterion of pupil gain has also been compared with other assessments by Crabbs (1925). She found when comparing objective and "semi-subjective" evidence that teachers are most alike in their efficiency of teaching spelling and are most dissimilar in their efficiency of teaching silent reading. The relationship between supervisor's estimates and pupil gain varied considerably, as Lancelot (1935) discovered with Maths teachers, from subject to subject that there was a slight tendency for the most efficient teacher in one subject to be most efficient in another, although the calculated coefficent of correlation was only approximately 0.20.

Using the criterion of pupil success as the measure of teaching efficiency Davis (1934) related the results obtained by pupils in State High School Examinations to the qualifications of their teachers

and found little relationship between them. What was discovered was that teachers who had the strictest discipline produced the best results in these examinations.

The question can also be asked in this context of whether "good results" on the part of pupils necessarily indicate good teaching. In this context Sandiford makes the point that a large number of other teachers may have effected the situation by inculcating habits of accuracy or industry in the same or allied subjects, not to mention the influences of relations and friends.

In the following year Betts (1935) used the measure of pupil achievement as a variable with which to correlate scores obtained on a NS trait: this was defined as "A measure of the difference between novice and superior teachers" (derived from a test battery validated upon the two categories indicated). In all 54 teachers of 1214 pupils were studied and a positive correlation, six times its P.E. was obtained between the NS trait score and pupil achievement. Rostker carried out an interesting study reported in (1940), (1942) and particularly in (1945). The essential characteristics of this study were that data was collected on 28 teachers of 375 pupils in Wisconsin and that the data was analysed against the criterion of pupil change, in teaching a particular section of social studies, when their initial and final scores from which the pupil change was assessed, were adjusted for pupil differences in initial achievement, intelligence and socio-economic status. According to this study, using this adjusted pupil gain criterion, teaching ability was found to be closely related to intelligence, social attitudes, attitudes towards teaching and knowledge of subject matter and how "to diagnose and correct pupil mental maladjustment". On the other hand Rostker failed to discover any significant relationship between teaching ability as measured by the criterion and either supervisory ratings or personality as defined and measured in this study.

In this particular study one can sympathise with the desire to control conditions by seeking to eliminate initial differences in the pupil's characteristics: it is altogether another matter as to whether this is either justified as a theoretical technique, since teachers may vary in the extent to which they succeed with pupils of different psycho-social organisations, or whether techniques of allowing "for initial differences" work without distorting the evidence e.g. the well-known fact that multipiple correlation may give rise to spuriously high correlation coefficients with a given criterion.

Nevertheless, the conclusions do in part agree with those of others who use the unadjusted pupil gain scores as a criterion.

Gotham (1945) who likewise worked in Wisconsin schools attempted to relate ratings on various personality traits to pupil change in citizenship studies in the case of 47 teachers. Correlation coefficients which indicate a significant degree of relationship were found between the first 2 and pupil change but the second two do not quite reach significance at the 5% level:

-0.35	Interest in work	Sig. at 5%
0.30	progressiveness	Sig. " "
0.25	refinement	N.S.
0.23	adaptability	N.S.

It would seem reasonable, therefore, to attribute at least part of the difference in the results of Gotham and Rostker to the difference in methodology employed in measuring pupil gain.

Yet when attempts have been made to relate overt acts by teachers they have generally failed to establish any clear relationship with pupil gain. An instance of this is found in the work of Jayne (1945) where the same lesson was taught to classes of similar ability by 10 teachers of varying ability and all the action was recorded, yet little association was found between what the teacher said or did and the ways in which the different classes increased their knowledge.

In 1945 "The Journal of Experimental Education" devoted a complete issue to developments in this area and reported on the work of a number of researchers. One of these, Brookover (1945) investigated the work of 66 male teachers of History by administering questionnaires to them, their supervisors and their pupils and related these to pupil gain. There was agreement on a number of points, e.g. that teachers who enjoyed their work were considered to be good teachers and that teachers who had the most friendly relations with their pupils were considered as most able, both by the pupils and those in authority. Yet these conclusions were not found to agree with the criterion of pupil gain.

Two investigators who "used a modification of Rostker technique reported their work consecutively in the same issue of the Journal of Experimental Education. Lins (1946) carried out an investigation involving a main sample of 204 students as well as 58 serving women teachers who took up their positions in Wisconsin schools during 1943 after gaining Teacher's Certificate of that University. Our only concern at present is with the latter group who were used to investigate the criteria that might be employed in measuring teaching efficiency. Three measures were produced:

1. A composite of five ratings based on evaluation by assessors who visited the teacher at work.
2. Pupil assessments.
3. Residual pupil gain, calculated by a modification of Rostker's technique, in five subjects for a total of twenty-eight classes.

When the data were correlated no significant relationship was found between the three predictor variables. By the use of multiple correlation in the main study five predicted variables yielded an r=+ 0.680 with a composite of supervisor ratings. When the number of variables was increased to six and the number of cases restricted to seventeen the multiple correlation coefficient was increased to 0.976:

perhaps 'inflated' might be a better term to increase this procedure which of necessity has distorted and forced the relationships to an artificially high level.

Von Haden (1946) used the same sample of 58 women teachers as did Lins and also employed the same measures of teaching efficiency.

Material in terms of interview reports and autobiographies, from the period during which the teachers had been undergoing training was studied: this information was then classified in terms of personal qualities of behaviour patterns as follows:-

1. Adaptability
2. Considerations
3. Energy
4. Initiative
5. Professional judgement
6. Social adequacy
7. System of values
8. Work habits

From the resulting matrix of correlations from correlating these factors with the measures of teaching efficiency, 24 of the 25 were significant at the 1% level when the particular criterion was that of supervisory ratings. But when pupil gain was the criterion then "only five per cent of the correlations with these criteria yield coefficients significant at the five per cent level". (The particular measure was residual pupil gain as employed by Lins, [redacted].)

Hoyt (1955) used six teachers in two schools in an experiment so that each teacher taught each of three classes in two schools. The difference was that for one class, the teacher was given only the names of the pupils while for the second test results on pupils were supplied and on the third, test information and its interpretation and personal data was available. Control of sex and intelligence were also controlled. Surprisingly in the impersonal, name only situation, English results were rather better in terms of pupil gain at the end of a term, but there were no differences at a significant level in social studies or mathematics. At the same time, the attitudes of the pupils to the teacher were better in the situation where the teacher had the maximum

amount of information about the pupils but this was only at a significant level in one school. Overall no significant differences in pupil gain in terms of total results were obtained.

Keislar and McNeil (1959) found that teachers were most influenced in their regard for a particular teaching method by their pupil gains on it, than by the (assumed) regard that the pupils had for one or other of the methods employed when the subject matter was spelling.

The conclusion to which one must come, after reviewing some of the experimental work in which the attempt has been made to consider the quality of the teacher's work through the changes produced in the pupil's work, is that there are probably more variables in the situation than have been successfully controlled to date. We have already argued earlier in this section that changes may be produced by other teachers previously, or other subject teachers or by the influence of friends and relatives. More experiments might cancel out chance influence but it would be as well to equate the groups according to stringent criteria by measuring intelligence, attainment and socio-economic status, by considering sex difference for the pupils and the teachers and then to consider the question of pupil gain in terms of attitude, interest and skill, as well as of fact.

A final point might be that few of the experiments consider the question of maturation which means that all the groups may not be similar if equated according to the other criteria but not this one; even if they are equated at the beginning of a prolonged experiment their relative standards of development may have changed considerably in time rather than as a result of external forces.

Thus although this constitutes a theoretically ideal method of considering teaching capacity, it is fraught with technical and administrative difficulties which seriously prejudice its general utilization.

CHAPTER XVII

THE USE OF RATING SCALES IN THE MEASUREMENT OF TEACHING ABILITY

An alternative method to that of seeking to measure changes in the pupils while at the same time attempting to eliminate some of the wide variability liable to be included in any canvassing of opinion has been that of using rating scales. Unfortunately, as we shall see, no general agreement exists as to what qualities should be included when assessing any individual and in many ways the position is worse when the intention is, as Rugg (1921 and 1922) pointed out, to assess the quality of a teacher. Most researchers tend to select the variables in which they are interested and carry out ratings using these. Even then there is wide variation in the ratings they consider important and the way they carry out the rating operation.

In general terms most researchers offer scales on which each quality to be considered may be rated on any one of five positions, although some use as few as three or more than seven. These may or may not be represented diagramatically or have the individual positions defined linguistically, although ideally they should have both. They vary too in whether they require verbal statement, a letter or a mark and as to whether or not they indicate what the distribution of grades should be. The number of raters also varies considerably: the more judges the greater the statistical reliability of the scale, but at the same time the increase in number may lower the validity, if not all the judges have equal opportunities of knowing the subject being assessed.

Another considerable source of variation in the making of ratings is the distortion produced by extraneous influences such as halo effect or prejudice. Most researchers have apparently attempted to reduce halo effect by arranging that the traits should be considered individually for the whole group. Very few have alternated the polarity of desirable traits and in most instances, particularly with work carried out prior to the 1950's, it is not clear what precautions, if any, were taken in obtaining ratings.

Pupil's Ratings of Teachers

There are obvious problems in asking children to rate their teachers and perhaps because of these comparatively few studies using this approach have been made; so together with them will be cited examples of ratings carried out by students of their teachers.

In an early investigation Blum (1936) tackled what many consider to be cardinal problems of the validity of pupils' ratings. The surprising conclusion was that in the case of the students who formed the sample in this survey, no relationship was found to exist between the grades which the students received from their instructors and the ratings which they were prepared to give to their mentors according to their ability to teach.

Another facet of the problem was investigated by Heilman and Armentrout (1936) who investigated the consistency of students' views of their teachers. The Purdue Rating scale was used with the 2115 students who classified 46 of their teachers on ten traits and the reliability coefficient was found to be 0.75. In the following year Bryan (1937) investigated the same problem with 1500 school children and obtained similar results with coefficients for different groups ranging from 0.61 to 0.97. Little evidence that the children's estimates of their teachers were affected by the grades received from them except that the extreme groups did tend to rate their teacher correspondingly higher or lower. While no general sex preference for teachers was found, each sex tended to accord the highest ratings to teachers of the same sex. Herda (1935) had also found little marked sex preference but where it occurred it was generally in favour of men teachers.

Brookover (1945) was concerned with investigating the relation between social factors and teaching ability. While no sex preference for teachers was discovered, both pupils and supervisors awarded higher

ratings to those teachers who had the closest social relations with their pupils.

As part of their work in establishing the validity of Form X-164 of the Minnesota Teacher Attitude Inventory, Cook & Leeds (1947) obtained one of three criteria of teacher-pupil rapport by using a Pupil-Teacher Ratings Scale consisting of 50 Yes-No-? items. A random sample of 100 teachers of grades 4 - 6 inclusive were each rated by 25 of their pupils on this scale. The pupil ratings were found to have a reliability coefficient of .93, and they were found to agree with the Inventory as well as with the ratings of Principals and Experts to beyond the 1% level of significance. The correlation coefficients were:-

Pupils'	ratings	of	teachers	with	Inventory	0.45
"	"	"	"	"	Principals'	0.39
"	"	"	"	"	Experts	0.33

In the earlier section on student opinions, reference was made to the study by Drucker and Remmers (1951) in which past and present students agreed in general terms on what were the desirable traits of instructors. When present students were asked to rate their teachers on these same traits they were found to have accorded a slightly higher rating than past students, although most of these differences were not significant.

RATINGS BY EXPERTS

During the 1910's serious attention started to be paid to the formalizing of opinions expressed by those in authority about the qualities of the teachers they were assessing. A pioneer investigator, Witham (1914), drew up a three point scale upon which teachers could be rated as "above average", "average" or "below average". The scale covered 46 qualities which included general as well as personality traits and teaching ability specifically. Agreeing with this view,

Pittenger (1917) argued the case for a record card which would ensure that the maximum of essential qualities would receive consideration and so would be more likely to produce a balanced rather than a biased judgement.

Sprague (1917) set out to develop a suitable rating-scale or "score-card" for assessing student teachers in Training and Practice. As a result of information obtained from responses to questionnaires administered to various people concerned with education, Sprague selected 16 items grouped under 4 main headings. These were then administered to 130 experts who were asked to distribute 1000 points between the topics according to what they considered to be their importance in contributing to teaching efficiency. The median scores were found to be as follows:-

1.	Teaching skill	357.57
2.	Classroom management	222.16
3.	Personality	210.85
4.	Preparation	204.42

From a further analysis of the distribution of scores a 5-point scale of grades was produced.

In America some authorities have utilized the system of payment by results, interpreted in a number of ways, to reward teaching efficiency. One such system investigated by Connor (1920) had selected the most efficient teachers for financial reward by rating teachers on four main qualities:-

1. The teacher considered as a person:
2. The government of the school:
3. Instruction as providing for educative activities:
4. Teacher's attention to physical, social and welfare of pupils generally.

The modified scale recommended by Connor consisted of a final analysis of psychological characteristics and included items for rating including such topics as the following:-

1. Thinking;
2. Knowledge and Skill;
3. Initiative in socially significant situations;
4. Morale;
5. Emotional reaction;
6. Ethical self-control;
7. Deportment;

In the following issue of the "Journal of Educational Research", Kent (1920) raised the question of whether the same items should be used for rating the work of students and practising teachers. By definition, the former are learning the techniques and skills, while the latter are engaged in the practice of the art of teaching and so should be assessed according to their actual performance as instructors and socializing agents. In concentrating on the measurement of the efficiency of teachers Brooks (1921) elicited what he considered to be the five main areas of importance: these were:-

1. Managing ability;
2. Natural aptitude for the work;
3. Method and technique of teaching;
4. Interest and industry in the work;
5. Personality.

Against this list can be put that of Thomson (1921) who was concerned with producing a rating scale for measuring teaching ability in students:

1. Care in preparation;
2. Logical explanation and questioning;
3. Blackboard and other illustrations;

4. Voice, manner and power of arousing enthusiasm;
5. Power of interesting children, keeping them busy and getting results.

An early example of a graphic rating scale in assessing teaching ability is to be found in the work of Freyd (1923). The 17 qualities for rating included physique, speech and personality as well as interest in teaching and each was represented by five phrases. The ratings were converted to numerical scores on a ten-point scale by means of a stencil.

Furfey (1926) was another who sought to enhance the assessment of teaching ability by improving the technique of rating. He concluded that substantial improvements could be made by using longer scales with items arranged in major and minor categories and by converting individual trait assessments to standard scores before combining them.

Much of the difficulty in rating relates to different conceptions of what constitutes a trait. Evans (1952) quotes from the work of Charters and Waples (1929) who attempted a definitive analysis of the traits desirable in teachers as follows:-

"Opinions on the trait desirable in teachers were obtained from school administrators, teachers, parents, Professors of Education, teachers' agencies and pupils. Examples of trait actions were obtained too. The traits were defined by reference to four dictionaries, and the trait actions were translated into traits. The list was then telescoped by combining synonymous traits. The traits were then ranked by 25 judges according to their importance at various stages. The result was a master list of 25 traits. This is given below.

1. Adaptability
2. Attractiveness
3. Breadth of Interest
4. Carefulness
5. Considerateness
6. Co-operation
7. Dependability
8. Enthusiasm
9. Fluency
10. Forcefulness
11. Good judgement
12. Health
13. Honesty
14. Industry
15. Leadership
16. Magnetism
17. Neatness
18. Openmindedness
19. Originality
20. Progressiveness
21. Promptness
22. Refinement
23. Scholarship
24. Self Control
25. Thrift

"

(Evans p. 62-63)

In spite of the comprehensive nature of this list the rating scale quoted by Mead (1929) has only a tenuous relationship with it. In this experiment a sample of 130 teachers were rated upon five qualities as well as being classified into 5 groups on their general merit: These were:

1. Technique or teaching procedure;
2. Elements of scholarship useful to a teacher;
3. Factors producing professional improvement;
4. Relations of teachers to the community;
5. Personal relations.

While most of the 'good' teachers were generally rated as high on most qualities, those classified as 'poor' were given low ratings on most traits. The suggestion implicit in this work is that these are essential qualities in efficient teaching, but an equally logical interpretation appears to be that this is an example of 'halo effect' in operation!

By the beginning of the new decade, Barr and Evans (1930) were able to analyse as many as 209 scales for rating teachers! When they did this, however, it became evident that there was a considerable degree of duplication. For example, 200 of the trait names occurred at least 5 times. Moreover, many of the names were variations on the same basic theme. When these were synthesised the following categories were produced:-

1. Classroom management;
2. Instructional skill;
3. Personal fitness for teaching;
4. Scholarship and Professional preparation;
5. Effort towards improvement;
6. Interest in work, pupils, subject taught etc.;
7. Ability to co-operate with others.

l.c.

Cattell's (1931) initial explorations in this field telescoped the main categories further to the 4 groups -

1. Natural gifts
2. Character and Temperament
3. General Direction of sentiments
4. Matters of Education and Acquired skill.

A further discussion of Cattell's early work is given below (P.13).

From the 1930's most studies involving expert's ratings show a shift of emphasis to descriptive studies of the teachers' personality and the relationships between pupils and teachers.

Odenweller (1936) obtained a number of ratings on personality traits for 560 students, student teachers and experienced teachers from peer groups as well as those in authority. A considerable measure of agreement was found between these ratings, and correlations ranging from 0.256 to 0.581 were obtained. Bryan (1937) likewise found general agreement between ratings made by pupils and those in authority. In this study several different groups were used and there were some marked divergencies, particularly between the overall estimates of pupils and the administrators.

A possible source of variation is that estimates of teachers' performance made by those in authority vary according to differences in time, i.e. different lessons could be seen. A second possibility is that variation is produced because usually in studies in this area the estimates of different persons in authority with regard to different students or teachers are combined. Jayne (1945) carried out an investigation which sought to overcome these shortcomings. Seventeen teachers were rated on 2 different lessons by 4 experienced supervisors yet the correlation between the rankings of the teachers by the supervisors were insignificant. So too, Hampton (1951) analysed ratings of 220 elementary school teachers: it was found that the same rater tended to rate a teacher in the same way on each of the

traits but this correspondence which reached significance at the 1% level dropped to insignificance when the individual ratings given by different raters were compared. Bach (1952) compared the results of ratings and other measures for a sample of 76 teachers using in-service and college data. The pattern of results prompted the following question:

> "The presence of sizeable correlations both among pre-service and among in-service ratings, but not between pre-service and in-service ratings leads the author to question a basic assumption, namely, that practice teaching and actual teaching are comparable activities." P. 79.

On the other hand, Jones (1956) working with two contrasting criterion groups of women teachers using composite ratings based on test material and college records obtained difference for the best and worst teachers although the largest differences were on five measures of personality and performance.

Schick (1959) likewise failed to obtain significant agreement between scores on a teacher Judgement Test and supervisory ratings of in-service teaching after 6 months, although the test, the Wisconsin adaptation of the M - Blank, correlated significantly, r = 0.30, with the results of college professional courses.

Yet Mann (1961) did succeed in identifying 67 variables in which the most widely separated groups of students in academic performance and teaching practice were differentiated: These variables include ratings, as well as performance material.

Bentley and Rempel (1963) found that a test instrument to measure teacher morale administered to 570 teachers in 22 Indiana High Schools failed to discriminate between those identified by peer ratings as 'high' and 'low' morale groups. But when the criterion was the ratings of expert judges, most of the items discriminated well.

CHAPTER VIII

INTERPERSONAL TEACHING RELATIONSHIPS

Some years ago during a seminar discussion, a mature student recounted an experience with a commercial organization in which he discovered that former teachers were much in demand as company representatives, not because of superior education, for training college students were, along with other teachers preferred over all other groups. It appeared that this company saw the two processes of selling and teaching as similar in that both involved personal relationships and more specifically that, as the salesman must 'sell' himself before he can dispose of his product, so the teacher does the same before he can extract or impart information or build attitudes, etc., etc.. Leaving aside the ethics of poaching on trained teachers by commercial concerns the writer believes a vital point is stressed by this account. It emphasises the central role of a teacher as a person acting in relation to other people and this holds true in whatever role he discharges this function.

The relation between various assessments of teaching ability and measures of social relations or of personal qualities regarded as important in social relationships, has been explored by many researchers since the beginning of the century and it is not proposed to reconsider researches previously discussed under other headings. The majority of these studies obtained a measure of positive agreement between the assessments of social characteristics and of teaching performance: thus Panton (1934), obtained a coefficient of correlation of 0.32 for measures of sociability and teaching performance. (This is significant beyond the 5% level.)

Stumpf (1937) in comparing the results obtained from the administration of two Teaching Aptitude Tests obtained a correlation of 0.54 between the Social Attitude score on the Morris Trait Index L and the social attitudes score on the George Washington Teaching

Attitude Aptitude Test suggesting that social attitudes could be successfully identified and measured. It is a common experience for most people concerned with education to have come across the brilliant scholar who cannot get along with people either in personal relationships or in professional teaching relationships for the latter usually does involve, with the possible exception of the formal lecturer, some degree of personal involvement with students. Jackson (1940) went so far as to maintain that "in teaching rather than in any other profession, people of mediocre intelligence are more successful than those of higher intelligence because of their greater social proficiency."

The degree to which relationships between teachers and pupils influence the latter group was examined by Flory, Aldren and Simmons (1944), when a group of twenty-three children of normal intelligence and achievement but who were diagnosed as maladjusted were placed in the care of their teachers for a two year period. At the end of this time eighteen were found to be markedly improved with the more intelligent having made the greatest relative improvement: the clear suggestion in this being that the improvement was produced to a considerable degree as a result of the stabilizing influence of the teachers - a conclusion with which Eysenck would probably disggree since a similar degree of improvement might have occurred without placing children under the care of their teachers during the two year period. (cf. Eysenck (1953), P. 198-9)

A number of experiments have examined the relationship between pupils and teachers along the lines that "Attitudes are caught rather than taught". Perhaps the most often quoted study in this connection is that carried out by Lewin, Lippitt and White (1939), on the influence of adult control of three types on three club groups of five to ten year old boys: These were termed "authoritarian" "democratic" and "laissez-faire". In the presence of the leader the first group split

into those who were dependent and apathetic and those who displayed more hostile and aggressive action, while in the presence of the second type of leadership there was accomplishment and a sense of harmony. The laissez-faire group displayed a sense of frustration and lack of accomplishment which became acute when the group was left alone and the lack of momentum was also obvious when the authoritarian leader was absent while the democratic group continued to be actively productive whether or not the leader was present.

Anderson (1943) studied teacher behaviour in a number of situations before concluding that it could be classified into two broad categories:-

1. integrative or learner-centred and democratic:
2. dominative or teacher-centred and authoritarian.

When children were exposed to the former kind of teaching situation they tended to behave in socially integrative ways themselves and scored higher on a 'mental hygiene' scale than children exposed to the latter teaching situation.

In a later statement, Anderson (1959) evaluated the results of studies of thirty-two leadership patterns in teaching and reported that eleven indicated that greater learning was obtained from the integrative learner-centred situation; eight that best results were obtained from the dominative situation and thirteen that there was no significant difference.

While it is clear that when the criterion is learning achievement, it is almost impossible to control all other factors except the variables of teacher-pupil personality, and it is also evident that those two have a complex casual connection and interact with each other.

Estimates of social adequacy have frequently been included in studies of teaching ability or have been appended to factors extracted from analyses of teacher ability tests, as in the case of Hellfritzch

(1945), who identified the third factor extracted which accounted for 9% of the variance as "personal, emotional and social adjustment". Ryans (1951) likewise obtained a factor identified as "teacher sociability" from the correlations of the Thurstone Temperament Schedule with ratings of Teacher effectiveness. An example of an examination of the measure of social adequacy by means of ratings is that of Von Haden (1946) who obtained a correlation of 0.323 between these and other ratings of teaching efficiency which is significant beyond the 5% level. At the same time it is not surprising that Lovell (1951) later found evidence of halo effect in such trait ratings.

The demands made upon the teacher's nervous energy by teaching large classes have to be experienced to be believed and it is interesting to recall that in the Study by Champ (1948) the most frequently given reason by women for withdrawing from teaching was the dislike for dealing with people in the mass. Halmos (1950) obtained a similar result from his study of students when he found a positive correlation between neuroticism and restricted social participation.

The extent to which a teacher feels to be succeeding is largely determined by his interpretation of the response produced by his impact upon the pupils, or others, able to judge his performance: this indeed is one of the criteria of occupational success given by Davies (1950).

Symonds (1950) argued that there was no 'best' kind of teaching personality and that different situations would affect the issue. At the same time the least successful teachers were found by Symonds to be so when neurotic or maladjusted, while the most successful appeared not only most stable and secure but were outward going in their personality make-up with an interest in and an affection for their pupils. Lassike (1950) agreed arguing that the successful teaching personality depends upon a balance of qualities rather than upon particular individual traits.

Baxter (1950) like Anderson, above, found pupils tended to model themselves consciously or unconsciously on their teachers, so that those working under efficient teachers tended to become more methodical and orderly while the charges of inefficient teachers did not develop these desirable qualities.

During the last decade or so there has been increased stress upon developing the social qualities of student teachers as being an essential part of the teaching personality complex. In an extensive study of the main forces operating at the interview stage for entry to teacher training Burroughs (1951) identified one of the factors extracted from five factor-analyses as "Acceptability at School" which was described in the ideal of the "modest hero" popular with both his fellows and staff, who actively participated in social activities rather than being passively involved in them. Swainson (1952) argued the need to assist the student teacher to achieve emotional maturity and help him move free from family ties and to become capable of relatively independent living and of behaving satisfactorily as an authority or parent substitute himself. She further argued that one way of producing the desired result is to engage the student teacher in a leaderless group engaged in some project or practical activity so that "In such a co-operative group neurotic traits born of a competitive environment are allowed to die away..."

Tibble (1953) likewise argued the benefits that would accrue from the tutor giving up his leadership in a group discussion:

"There is no doubt at all that . . . . . groups with a democratic (which does not mean laissez-faire) structure provide opportunities for relatively rapid maturation of members. Furthermore, the insights so gained can be directly applied by the student in the school and classroom situation".

Going further he later argued, Tibble (1954), that the interpersonal group relations developed in such a setting may enable the students to

overcome problems in learning which in time should give insights into the problems pupils might encounter in learning. Small groups might even be used as a form of mild group therapy for teacher-training students. They also have the advantage according to Tibble (1959) of enabling students to understand more closely the dynamics of interpersonal relations, although this does depend to a considerable extent on the tutor's capacity to play other than instructional roles.

To break with the pattern of most of this thesis, the following quotation is given at some length because it gives so succinctly the situation facing the teacher:

> "Faced with children, the teacher meets himself. It is during that encounter, whether sudden or gradual, that he beholds in the mirror made for him by the class, not the reflection of his outward form to which he has become more or less accustomed, but his overall identity. As this has previously been largely inaccessible to his consciousness..... the experience comes as a bit of a shock. The intending teacher must learn how to adjust to it".
>
> Henderson (1957)

The degree to which colleges assist their students to overcome these problems is to some extent a measure of their success.

Cogan (1958) sought to investigate the relationship between certain specific observable behaviours exhibited by teachers and the amounts of work performed by their pupils. Data was obtained from five principals, thirty-three teachers and nine hundred and eighty-seven pupils and the main conclusion was that "in the perception of the pupils, inclusive ('integrative" A.G.J.) behaviours of the teacher are positively related to self-initiated work". (P.90)

The report goes on to indicate that reliance can be placed upon statements made by pupils regarding their performance in school.

Attention has been directed of recent years to an examination of the foundations of a teachers' influence in relation to his pupils.

French and Raven (1959) defined five sources of this power as follows:-

1. Coercive: based on the pupil's awareness of the possibility of punishment.
2. Reward: based on the pupil's awareness of the possibility of reward.
3. Legitimate: when the pupil accepts the authority and influence of the teacher over him as proper.
4. Referent: where the pupil for a time uses the teacher as a model.
5. Expert: when the pupil is influenced by the expertise of the teacher as a master of the subject.

Alden (1959), reported by Kounin et al., (1961), manipulated the last two named sources of power in relation to a rebuke delivered to planned misbehaviour in a class so that rebukes were either task-orientated or teacher based. It was found that the former rebukes produced the most positive reactions and that generally the highest productivity and most favourable responses came from children taught by the "Expert power" based teacher who used this type of comment on misbehaviour.

Rosenfeld and Zander (1961) also investigated the effects of different forms of teacher power with 400 students with reference to the perceived level of performance and the level of aspiration. It was found that students responded to all forms of teacher power except indiscriminate coercive power, which is interpreted as teacher disapproval when the student feels he is being admonished whilst performing up to his maximum. Teacher behaviour interpreted by the student as being based on coercive power caused the greatest disparity between the students' level of performance and aspiration with the score in the negative direction.

Crabtree (1961) reported by Eson (1965) arranged two types of class structure, one essentially teacher centred the other pupil centred,

and used the criterion of pupil gain with rotation of groups. It was found that convergent thinking or the ability to recognise the usual best answer occurred far more frequently in the teacher-centred situation than in the pupil-centred one: divergent, creative or original thinking was found to occur in pupil centred classes more frequently than in teacher-centred ones. In each case the ratio was about 3.1 of the observed thinking responses.

From the review of these researches it might appear that there is a direct, simple and unequivocal link between the teachers and pupil's behaviour patterns. Unfortunately, or perhaps in some cases, fortunately, the relationship is complex and reference to a slightly older study than those most recently discussed may be sufficient to make the point.

Keislar and McNeil (1959), studied a sample of forty student-teachers engaged in teaching spelling by one or other of two methods. The pupils had been previously approached by the investigators and were co-opted as conspirators with the task of showing preference for one or other of the two methods involved in the experiment. In spite of the fact that the pupils responded as required, most of the teachers were influenced with regard to the methods far more by the pupil's spelling performances than by their assumed enjoyment or otherwise for a particular method.

The trend today is clearly towards making the teacher have a concern for his pupils "in the round". As Kitson (1962) argued ~~in a recent M.A. thesis~~,

> "Teaching is a pastoral professional, therefore an effective teacher is not only responsible for the training of the intellect, but also for caring and looking after persons. Because of this therefore, it is necessary for the teacher to be equipped with a highly cultivated understanding of the way people feel and behave, as well as the way people learn and think". (P.30)

CHAPTER IX

ATTITUDES AND INTERESTS IN RELATION TO TEACHING ABILITY

Allport (1963) distinguishes between the choice of concept made by those working in the field of social psychology and those interested in the field of personality : in the former attitudes are favoured, while in the latter, traits are the favoured concept (P.348). In his earlier detailed study of Attitudes Allport (1935) speaks of attitudes as being formed,

1. Through the accretion of experience or the integration of specific responses of a similar type.
2. By individual differentiation.
3. Through dramatic experience or trauma.
4. By the imitation of parents, teachers or playmates (P.810-11).

Traits are regarded as being more general than attitudes but these may be so broad in range that they may be identical with traits.

Yet a third term relevant in discussions relating to views about a given subject is "interest". As Vernon (1962) points out

> "Interests are very much the same as attitudes though their definition is a matter of controversy. Their subject matter is usually more concrete". (P.161)

Evans (1965) makes a similar point that interests are more specific and "directed towards a particular object or activity".(P.92).

It is outside the scope of the present enquiry to seek to produce a definitive clarification of the structure of the concepts of regard or drive which impel the individual to adopt a stance in relation to objects, situations or environmental relationships of various kinds. Rather it is intended to review a selected number of researches which seek to examine thinking about teaching whether this be designated as an attitude, interest or opinion in the subject.

In the B. list of researches by Eliassen and Martin, Attitudes are not mentioned prior to 1940, although work involving these are

found in the reports by Manske (1913) and Kent (1920). Interests on the other hand figure quite largely in the literature dealing with teachers and are prominent from the first decade of the century. Some are concerned with studying, like Maclear (1913) the impact of interests outside teaching or the teacher : these are not considered to be within the present terms of reference and are excluded from the discussion.

An attempt to examine the variety of attitude measurement was made by Pace (1950) when 2500 subjects were administered questionnaires designed to discover the activities in which they were interested (engaged) and the attitudes in these fields of activity. When a small sample was re-tested after six months, 85% had identical interests and 75% identical attitudes to the first occasion. Those with the strongest attitudes pursued their interests most strongly.

In an early article in the "Psychological Review" on the subject of the relation between academic interests and success in professional courses, Bridges and Dollinger (1920) correlated the ranks obtained from five hundred students with estimates of their own interests in a variety of courses and their own estimates of their abilities. In spite of the large number of extraneous influences the following relationships were obtained:-

Interest and ability estimate $r = 0.57$
Interest and ability grade obtained $r = 0.25$.

Thorndike (1921) re-analysed the data used in the Bridges and Dollinger study using a random sample of 140 students substituting rank order for the actual grades received. When this was done the following was produced:-

Interest and ability estimated $r = 0.70$
Interest and ability grade $r = 0.46$.

Another fairly typical study of the reasons why teaching attracts some young people is that by Austin (1931). In analysing the choice

of profession put forward by 1105 young people the largest single group was found to be formed of those who selected teaching and consisted of 10% of the boys and 42% of the girls. The most often expressed reasons for making this choice by the fifteen and sixteen year olds were the attraction of the pay and holidays. Valentine (1934) undertook a similar kind of enquiry with University students and obtained, as might be expected, rather more sophisticated responses in that, as well as economic motives, parental influence and a liking for school and children were given as reasons for selecting teaching as a profession.

The relation between experience and teaching performance, without recourse to the measurement of attitude as such, was examined by Pinsent (1933) who discovered that prior teaching added to the advantage of the men as far as teaching was concerned, and to that of the women [illegible] as far as their academic results were concerned. Turnbull (1934) obtained similar results in that, groups with prior practical experience of teaching were found to be slightly superior to those without such experience although such experience appeared to militate against degree work. In elaborating on the work of Pinsent and Turnbull, Saer (1941) found much that corroborated the earlier findings about the effects of prior teaching experience but indicated that its quality and the stage at which it was experienced were more important than its duration.

As early as 1920 Kent had argued that at least one of the items measured by teacher rating scales should be "the teacher's attitude to his work." A decade later Cattell (1931) produced his rating scale for use in selection based on an empirical enquiry into what administrators, college lecturers, teachers, students and pupils, considered as important qualities in young and mature teachers. The seventeenth listed trait was 'outside interests'. This is further

discussed elsewhere (P. 14). So too Hollis (1935) from the study of over 8,000 pupils found wide interest to be a desired quality in teachers while all the 7 listed qualities indicate a person of a just and kindly disposition. One of the earliest studies using an Attitude scale as such, is that by Yeager (1935). This scale was part of a battery administered to a group of 500 high school children and those shown as having a favourable attitude towards teaching and teachers were found to be superior in measures of socio-economic status, intelligence, scholarship and personality : Girls were superior to boys on all measures except leadership,but when the boys selecting P.E. were eliminated the latter score was lowered but the levels of scholarship and intelligence were raised.

Not all researchers have measured attitudes and interests by means of formal scales but at the same time it is frequently obvious that they are aware of these factors by the way in which they select for consideration, factors which might today be considered as elements of interest or attitude. Birkinshaw (1935) used the criterion of satisfaction with the work as a measure of teaching success and observed some marked differences among 583 women teachers who were classified as high or low in terms of this criterion. More who were dissatisfied produced reasons for teaching such as having "a liking for people" and interest in a subject or study as such, as well as a desire for security : the least satisfied gave this as their first reason and went on to list the influences of parents, teachers, or friends as well as the economic advantages derived from the grant system for teacher training.

Another study using contrasting criterion groups but this time between a group of 122 teachers in training and a similar group preparing for other work was carried out by Seagoe (1942). Although no great difference in the family background of the two groups was

found as regards a tradition of teaching, nor in the interests of the group in terms of dealing with children in camp and Sunday school, the pleasure derived from these experiences was greater in the case of those who had elected to become teachers.

Tudhope (1944) in two consecutive issues of the "British Journal of Educational Psychology" reported on the analysis of motives for entering teaching, among 643 training college students of both sexes, and on the attitudes towards the college course which they reported encountering in the Secondary Schools from which they had come. What were described by the author as desirable motives predominated - security, fondness for children, a particular subject interest as well as a desire to continue their own education, figured prominently as motives for entering teaching. There were also those who expressed a fondness for teaching as an activity and there were also those expressing the altruistic motive of wishing to do good : the relatively good salary was also mentioned!

The majority were found to have selected teaching prior to entering the sixth form, with the women making their decisions earlier than the men.

Most of the women in Tudhope's group (71%), reported that they had encountered a generally encouraging attitude towards the college from their secondary schools head teacher, but the men were almost equally divided on this question. What was evident was that most secondary school head teachers were biased towards University courses and would have preferred, had their pupils gone there rather, than to a training college. In Tudhope's view this suggested that the attitude of these heads towards the training college course was unsatisfactory. Four years later Best (1948) confirmed most of Tudhope's findings.

Evans (1946) constructed a test of attitude towards teaching as

a career and administered it to 211 School Certificate candidates in eight grammar schools in England and Wales together with the Otis Self Administering Test of Mental Ability and the V.S.A. The slight difference between the attitudes of the girls and boys towards teaching was insignificant although the girls had a slightly more favourable attitude. Of several variables examined, attitude to schools seemed to be most closely related to attitudes to teaching ($r = 0.36$). On the other hand it is perhaps surprising to note that academic achievement as measured by School Certificate results was negatively correlated with attitudes to teaching. Less surprising was the discovery that academic and social interests rather than practical ones were most closely related to a favourable attitude to teaching. The same year Jones (1946) obtained a correlation $r = 0.36$ between inventory scores of attitudes and interests and ratings of teaching activity for 65 teachers. However when the criterion of pupil gain was used the correlation dropped to 0.07.

With an early edition of what later evolved into the M.T.A.I., Cook and Leeds (1947) obtained the unusually high correlations ranging from 0.45 to 0.49 between scores on this Attitude to Pupils Inventory and criteria of teaching success derived from heads, pupils and the investigators. There was even agreement between the criteria of teaching ability and the composite criterion which produced a correlation of $r = 0.60$ with the inventory.

A study by Thimme-Gowda (1948) sought to break down the problem of assessing attitudes to teaching by specific enquiries relating to the attitudes of students in training to various aspects of their course. Scores were obtained, from 198 students on a two-year course and from a group at an emergency training college, on five attitude scales dealing respectively with :-

1. Principles of Education : Theory and Practice;
2. Educational Psychology;
3. General academic subjects;
4. Creative subject e.g. P.E. and Art;
5. School Practice,

and they were related to each other and final Teaching Scores. Some attitude measures relating to self and society were also considered and found to relate to the attitudes of some subjects, but the only variable significant beyond 5% with practical teaching success was the measure of attitude to school practice.

Using a relatively large sample of 466 female subjects drawn from sixth form girls, training and emergency training colleges and a University Department of Education, Champ (1948) obtained attitude scores to teaching which were compared with each other and with those derived from serving and former teachers. The latter had the least favourable attitudes to teaching which is not really surprising since many had retired prematurely, not only because of age or family commitments but because of nervous strain and a dislike for working with large groups. No significant difference was found between the attitude of the groups drawn from different types of schools.

Burroughs (1951) in the study referred to elsewhere (P.91) found that estimates of teaching ability were based on apparently incidental and peripheral factors both when the suitability of a candidate was being assessed at school and at a college interview, although the particular elements varied in the two situations : in the former, social and sporting factors dominated whereas in the latter situation the external facets of personality - speech and appearance especially, weighed far more heavily than estimates of maturity or evidence of scholarship. When evidence from different sources was compared it was not found to tally and Burroughs concluded that data derived

from reports, pencil and paper tests, examinations and interviews provided different and additional evidence about candidates.

In a broadly based enquiry into the factors underlying Teaching Ability, Lovell (1951) obtained twelve sets of ratings of a body of emergency college students and correlated them with each other and the criterion of final Teaching marks. All the correlations were significantly and positively correlated with the criterion indicating halo effect. When factor analysis was used three factors emerged accounting for 65.8 of the variance. These were identified as:-

1. Intelligence and the willingness to use it in the education of children.
2. An empathy factor - the ability to appear live and interesting to children.
3. A speech factor.

General support for this conclusion by Burroughs was provided by Evans (1951) in her "Criterial Survey of Methods of Assessing Teaching Ability." Yet the tenuous but tenacious link between the person's attitude to a task and success in executing it when the task was teaching, continued to be demonstrated this time by Martindale (1951) who obtained a correlation of 0.19 between a measure of satisfaction and a criterion of teaching ability, thus complementing the views of Symonds (1950) who contended that maladjusted teachers were the most critical of the education system, the conditions of work and the people involved.

Higson (1951), like a number of other researchers in the particular era, used a main sample drawn from an Emergency Training College together with two smaller groups of graduates and training college students in making his enquiry into the "Interests of Education" of his subjects. Considerable differences were found between each of the groups and the two sexes with regard to their 'physical, religious and moral attitudes.' (P.61). As one might expect, utilitarian

attitudes predominated in Emergency College students and the more abstract in the University students. Differences were also sought for and found amongst teachers preparing for work with different age groups : primary teacher-students were found to have a significant preference for Education Interests and for Professional Values, whilst Secondary Modern teacher-students generally rejected Religious and abnormal positions in favour of Physical and Utilitarian ones.

The specific reference to Emergency Training Colleges at the beginning of the paragraph is simply made as a matter of fact. Some researchers e.g. Grant (1950) and Sutherland (1955) have been concerned with making a specific study of the students in their institutions. Generally, as the latter discovered in Scotland, few significant differences are found between them and other students of similar age who enter normal courses of training.

The theoretical and actual outcome of practical experience in the training of student teachers was given by Waddington's study of the use of play centres (Evans 1961). Of 738 female students completing a questionnaire 479 had attended a play centre and were interested. Of these just over half (53%) had found the work interesting and valuable : (This appears a very disappointing result to the present writer in view of the fact that Waddington reported that the lecturers using these centres for teacher training were so enthusiastic and the interview would be likely to produce the more apparently desirable affective response). A written paper failed to differentiate between the students who had attended the centres and those who had not, but in two colleges the teaching marks of the former group improved.

Ringness (1952) confined his study to 63 male and 37 female undergraduates and related entry and college data to a variety of instruments used by the researcher for measuring attitude to teaching. They were:-

1. Paired Comparisons.
2. Ranking Questionnaire.
3. Comparison of Profession.
4. Strong's Vocational Blank.
5. Autobiographies.

In addition the complex of teaching performance was assessed by

a) The criterion of teaching efficiency assessed by visiting college staff:

b) The criterion of teaching acceptability assessed by interviewing the school superintendent.

Sex differences were discovered in, for example, the paired comparisons when the men stressed the security aspect of teaching and women the welfare. In the reasons given for entering teaching too, men differed from women in placing an interest in the subject matter taught in first place, and 'service to society' second, for they revised the order. In spite of the sex difference on the 'social service' aspect of education, 'welfare' was the only variable on the Strong Vocational Blank found to be in any way related to teaching choice. The time at which the choice was made was also interesting in that this was frequently delayed until college age although, according to the autobiographical reports, an interest in teaching had existed since an early age.

Ringness's guarded conclusion is that :

" . . . . teaching success is related to the nature of the reasons for choice of teaching" ..... (which) ..... "may not be the same for all teachers."

Evans (1952) examined the relation between various measures of personality and attitude derived from students in training colleges and a University Department of Education. The pilot study produced insignificant correlations with teaching marks for measures on a graphic scale of sociability and resourcefulness. although the three ratings of each student by fellow students, members of staff and the

research worker showed a significant correlation or halo effect.

The main experiment included also a measure of interests, two to measure Interest in Teaching and a standardized intelligence test. None of the variables produced correlations significant at the 5% level. A conclusion well worth quoting is that used to explain the lack of association between interests and teaching ability :

> "It may well be that the student who directs his energy into a few main channels may do the same thing where work is concerned and so may become a better teacher than one who fritters away his energy on many interests." (P.231)

In spite of the fact that Dr. Evans failed to discover an overall pattern of agreement except perhaps, as in this present study with the "capacity of being known", Uttley (1952), working at an emergency training college, was more fortunate. Positive and significant measures of correlation were obtained between tutors' assessments of teaching ability, which Dr. Evans had also considered as the best criterion of teaching efficiency, and students' estimates of each other : this was true of assessments of the qualities of leadership, mental alertness, emotional stability and persistence, but less so far co-operation, mental alertness, sympathy with tact and expressiveness of personality.

A rather more broadly based approach was adopted by A. S. Phillips (1953) who produced tests of intelligence and English suitable for students in training but failed to obtain a significant correlation between them and teaching marks. The third test instrument was a projection test produced by Phillips, consisting of 2 cards showing 'a child' and 'a teacher after work'. This instrument was first used upon a group about whom information had been collected on a five point scale under ten headings:-

1. Cheerfulness at, and contentment with work.
2. Friendliness and good disposition.

3. Freedom from prejudice
4. Emotional stability
5. Wide interests
6. Sense of humour
7. Ambition and idealism
8. Social adequacy and poise
9. Patience and tolerance
10. Sympathetic understanding of children.

The responses produced by the students were then classified and the characteristics as represented by the above reports examined. On the basis of these subjective comparisons standards were evolved and when the test was administered to the main sample the responses were classified as follows:-

1. Sketch I Understanding Children.

Highs - Appreciating their problems.

Lows - Externals of behaviour.

Mediums - Conflicts. Adult view point.

Sketch II Cheerfulness at, and Contentment with work.

Highs - 1. Critical of Character 2. Approval.

Lows - Critical of Work.

Mediums - 1. Criticism, 2. Approval, 3. Vagueness and superficiality.

2. Friendliness and Good Disposition

Highs - Outward training interests.

Lows - Inward training interests.

Mediums - 1. Vagueness and ambiguity. 2. Description

3. Freedom from Prejudice

Highs - 1. Tolerance and width of view. 2. Criticism.

Lows - Egotism 2. Dogmatism.

Mediums - 1. Vagueness and ambiguity 2. Emotional Stability.

4. Emotional Stability

Highs - Annoyance 2. Reaction 3. Fear

Lows - Annoyance 2. Reaction 3. Fear

Mediums - Vagueness and ambiguity

5. Sense of Humour

Highs - Inward directed humour 2. Literary affairs

Lows - Outward directed humour

Mediums - Vagueness and ambiguity

6. Ambition and Idealism

Highs - Economic security 2. Ambitions for his children.

Lows - Happiness and companionship. 2. Ambitions for his children.

Mediums - Vagueness and ambiguity.

7. Social Adequacy and Poise

Highs - Effort

Lows - Panic 2. Self display

Mediums - Vagueness and ambiguity.

8. Patience and Tolerance

Highs - Lack of perseverance

Lows - Conditional perseverance

Mediums - 1. Impatience 2. Unqualified perseverance
3. An appeal to some extraneous authority
4. Vagueness.

This research has been quoted at some length for two main reasons. First, as a projective test it circumvented many of the problems encountered in research with students, especially the tendency which probably exists of eliciting 'desirable' rather than accurate responses to questions of a professional or personal nature. Secondly, the results quoted by the author are amongst those with the highest measure of agreement with teaching ability encountered in the literature on the subject: for the measure of sympathetic understanding of the children with the

criterion r was 0.27; emotional stability correlated at 0.59 with this criterion and good disposition produced the high association of r = 0.71. The multiple correlation was r = 0.81.

Unfortunately, in spite of a number of attempts to replicate the conditions of this experiment, the present writer was unable to classify the responses of the subject into sufficiently clear cut categories for this approach to be developed for inclusion in the main study. The information obtained is therefore only included in the qualitative and not the quantitative description of the subjects involved in the present research.

The complexity of the factors surrounding attitudes in relation to teaching ability was demonstrated by Evans (1953). Not only did attitude scores of students drawn from three colleges and a department of education vary among themselves and fail in each case to relate to teaching marks, but in three instances significant negative correlations were produced between the attitude and intelligence measures. The author suggested that the population's social and economic conditions might account for the phenomenon. Another reason might be the distribution of the scores on the two tests in question.

The dual aspect of 'attitude' as a factor in teacher training in so far as both the tutors and the students were measured for their views was a feature of the research by Robertson (1953). A collection of fifty attributes which were considered by eighteen tutors to contribute towards teaching success were found to be covered by the following categories listed in order of importance.

1. Attitude and insight in dealing with others.
2. Attitude and insight in learning to teach.
3. Teaching abilities.
4. Range of Personality.
5. Attitudes as a teacher.
6. Personality qualities, temperament and bearing.

7. Practical abilities.
8. Physical abilities.

The views of the tutors were themselves considered and found to fall into three groups:

1. Those who made special cognitive approaches to the attributes or who had special ways of perceiving teaching ability.
2. Those who considered attributes associated with effectives or interpersonal aspects particularly important.
3. Those who placed special emphasis on the process of developing teaching ability, or on conative aspects of learning to teach.

Whether or not there is a relationship between a teacher's understanding of pupils' behaviour and length of college training was examined by Amatora (1953). Her enquiring involved a total of 485 teachers and 1,542 elementary school pupils and used her child personality scale. Results were tabulated according to the length of college training as follows:-

Group 1. Reports from teachers with under 2 yrs.in College (15%)
,, 2. ,, ,, ,, ,, — 3 ,, ,, ,, (20%)
,, 3. ,, ,, ,, ,, — 4 ,, ,, ,, (45%)
,, 4. ,, ,, ,, ,, — 5+ ,, ,, ,, (20%)

An analysis of the reports indicated that the larger the period of college training the greater the degree of teacher understanding of pupil behaviour : the least educated produced critical comments about their pupils most frequently.

As Amatora demonstrated a relationship between the duration of training and the way in which pupils' performances were perceived, so Reed (1953), using data from a residential group of 104 from an actual sample of 160 teachers, concluded that the most effective teachers, as assessed by scales administered to pupils and

administrators, were those who scored highest on a sentence completion test designed to measure "acceptance of self". The correlation between this attitude to oneself as a person and the other measures ranged from 0.66 to 0.76.

Ryans (1953) used a variant of this approach in an examination of the viewpoints of 213 elementary and 338 secondary teachers, including approximately one-third who were training for work in these schools. Two 20-item questionnaires were administered and the items analysed by correlation for each group and by two factor analysis with a selection of the items.

Six oblique factors were extracted from the elementary group's data but only two had significantly large loadings. These were identified as :-

1. Factor 1. Emphasising the academic functions of the teacher - a belief in the importance of 'fundamentals'.
2. Factor 3. "a'traditional' subject-matter curricular emphasis," and were correlated 0.44.

The secondary sample's data also produced six centred factors but the oblique factors extracted as a result of relation to simple structure proved even more ambiguous. Ryan's general conclusion as far as the items included in his study went, was that a major opinion continuum is that along which teachers' opinions may be placed according to the proclavity of the teacher -

> "to associate himself with so-called 'modern' education viewpoints as contrasted with viewpoints that sometimes have been called traditional."

This concern with the apparent dichotomy between the conservatives or traditional and the modern or progressives is one which has attracted increasing alteration from experimentalists in education and psychology during the last decade and this trend is reflected

primarily in the researches selected for review in this section.

One of the major difficulties several times previously mentioned is the susceptibility of faking - a point mentioned by Wandt (1954) who in analysing the results of three teacher attitudes scales to selected samples of teachers discovered that the group identified as 'superior' by their supervisors were scored significantly higher (to the progressive end of the scale) on the measure of attitude to pupils and democratic classroom procedures. The obvious problem is how one is to contend with the intelligent sophisticated subject who is not prepared to tell the truth.

Some researches in specialized fields have produced results relevant to our discussion. Thus Oliver (1956) analysed data derived from reports of tutors working with 127 men and 100 women students of physical education. Little sex difference was observed and for the whole group three factors were extracted which were identified as :-

1. A general teaching factor;
2. Personal and emotional qualities;
3. Association with subject matter.

That these factors do not coincide with the recently mentioned traditional/conservative versus modern/progressive pattern should in no way be thought surprising since the analysis undertaken reflects a variety of interests and assumptions on the part of different researchers : the experimental approach to both personality and the teaching complex will, in the long run, probably gain more than it loses from this diversity.

Kissack (1956) examined the attitudes of students in three training colleges to corporal punishment. Sex differences were found indicating that significantly more opposition to corporal punishment existed amongst women than men : there was also far less opposition

in the single sex men's college to the idea of corporal punishment than in the case of the mixed college. In the case of women's colleges, the opposition to this form of punishment was found to be significantly correlated with final marks in both the Practice and Principles of Education.

It is a sad reflection on society that, although no significant difference was found between the groups of students following a training for infant and junior schools, in a follow-up study after 10 months of in-service teaching, significant changes in the direction of favouring corporal punishment were found and these swings were most marked in the case of infant teachers with classes in excess of forty children!

The range as well as the quality of interests was considered by Evans (1957). Using the final teaching and Education marks as criteria, no significant relationship was discovered between the range and diversity of interests or the intensity of interest in teaching as measured by a questionnaire administered to forty-one post-graduate teacher-training students. Far more worrying is the fact that significant negative correlations were obtained between the measure of interest in teaching and intelligence test results! It seems likely that either the more intelligent had a diversity of intense interests and/or the least intelligent protested their interest in teaching most strongly for obvious reasons.

Thompson (1957) administered a battery of attitude and value scales including ones by Kissack, mentioned above, Oliver, Eysenck and Allport and Vernon's 'Study of Values'. Factorial analysis extracted four significant factors of which the first two accounted for 30% of the variance and were identified as :-

1. Tendermindedness verses toughmindedness.
2. Naturalism - transcendentalism factor.

After relation a third meaningful factor interpreted as 'progressiveness' or 'naturalism' in education. Oliver's scale which had an appreciable loading on the first two factors, +.544 and +.473 had the highest loading of +.773 on this factor. The suggestion is, therefore, that these dimensions constitute a persisting structure of attitudes towards education although the analysis technique, based as it is on selected tests constructed according to 'a priori' assumption must, of necessity, reflect the theoretical concepts underlying the original tests themselves.

Walters (1957) in his thesis reports on the relation between G.C.E. passes, interview grades and the performance of students in training. ~~Since the Table of Contents does not describe the contents (It lists 'Section (a) P.15. Section (b) P.26. etc.) and since there is no summary or concluding section it is difficult to see what is achieved, but~~ From this it appears (P.74) that G.C.E. results are related to College results but at an inferior level to mathematical and intelligence tests.

Steele (1958) also was interested in the 'progressive' versus 'naturalism' continuum and constructed a 58-item scale which was administered to training college students at the beginning, and end, of their two year course, and after six months experience of teaching. All groups were found to move towards the progressive end of the scale during training, although the initial differences persisted, with the infant teachers scoring as more progressive than the junior one. Initially a low positive correlation was found with intelligence but this disappeared by the end of the course while significant correlations were also found between the dimension and final college education (+.215) and teaching marks (+.185). As one might expect from the experience of other researchers, the attitudes of the former students swung back towards the 'traditional' end of the

scale, but after six months, were still nearer the progressive end of the scale than they had been when the students had entered college.

Burroughs (1958) extracted three factors from an analysis of the ratings awarded after interviewing students applying for admission to a postgraduate teacher training course. Estimates of intellectual maturity and of the candidates' powers of self-expression were found to correlate higher with final teaching than estimates based on the assessments of the personality qualities thought to be important in teaching. Fuller details of this study are given in Burroughs' thesis (1951) (P. 91 below) the burthen of which indicates that of five factor analyses, at the interview stage the prime recurring forces are centred upon non-cognitive elements which might be reasonably considered as facets of an attitude or attitude-enthusiasm for the job, cheerfulness and pleasantness, sincerity, as well as sensitivity.

The Minnisota Teacher Attitude Inventory described elsewhere ~~and used in the present study (P. 120)~~ was used as part of a battery of tests administered by Evans (1958) to 109 postgraduate students training for teaching. The M.T.A.I. and the verbal and non-verbal tests all were significantly correlated with the criterion of Educational Theory marks in the Final examinations but none were so related to the Final Teaching marks. Since the M.T.A.I. results did not correspond to American or Canadian scores but were significantly related to the non-verbal intelligence test scores, a subsidiary experiment was performed suggesting that subjects may easily raise their scores when they provide false information - a point also made by Sorenson (1959).

Charlton, Stewart and Paffard (1960) carried out a longitudinal study of the attitudes of students pursuing courses of teacher

training at two University institutions and found that, with some reservation, students had favourable views and attitudes towards their Education courses.

Gowan (1958) factor analysed correlations derived from the scores obtained on batteries of attainment, personality and various other scales administered to 1700 students teaching candidates. Thurstone's centroid method extracted six factors from the thirty variables identified as :-

Factor I Intelligence;
Factor II Ego sensitivity;
Factor III "Hopelessness indicator";
Factor IV A "mystical" factor (with high religious loading);
Factor V A bipolar verbal-artistic v. mathematical practical factor.
Factor VI Manic irresponsibility.

When a selection of 20 variables was analysed and rotation to oblique simple structure performed the three, for our purpose more meaningful, factors designated as follows were extracted:-

Factor I General Teaching Ability
Factor II Thoughtfulness or anti-delinquency (sic.)
Factor III General Energy

A reduction of the number of variables to 10 in an attempt to combine factors I and II produced an reanalysis :-

Factor I General Teaching Adjustment
Factor II General Energy
Factor III Status, poise or flexibility.

Gowan then used a second sample of 110 students and eight variables including the M.T.A.I. and extracted the three factors.

Factor I General Teaching Adjustment
Factor II Authoritarianism
Factor III Status.

Freymier (1960) used a sample of 69 teacher college students and 106 of the high school students taught by them for the examination of the attitudes of the two groups as measured by the F. scale (a measure of anti-democratic potential) and particularly to see how well the prospective teachers could succeed in estimating the adolescents' responses.

The scores of the pupils suggested that they subscribed to the belief that "man is basically good", but the students interpreted the views of their charges correctly on an average of only eight out of twenty-seven times for they had a negative estimation of their pupil's perceptions and believed that they saw man as basically bad. Freymier concluded that in this experiment the student teachers were unable to gauge the attitudes of their pupils correctly.

In carrying out a survey of the motives involved in the selection of teaching at the elementary or secondary level, Lang (1960), commented ;

> "The findings of studies of teachers' personalities and teachers' classroom behaviour suggest that teaching serves as a distinct outlet for certain psychological needs and these may differ for individuals who elect to teach at the elementary or secondary schools." P.101.

Lang administered a Thurstone type scale of motives for teaching, in which 25 reasons were presented each on a five point scale together with Edwards' Personal Preference Schedule consisting of 210 pairs of statements aimed at measuring fifteen psychological needs based on subjects' self descriptions, to 101 female elementary and 87 female secondary teachers. In both groups socially acceptable reasons were given for selecting teaching but there were some differences characterized as follows :-

Elementary teachers.

"I like working with children":
Manifested greater nurturance :
Manifested lower achievement :
"I like to give and receive love from children."

Secondary Teachers.

"I like the intellectual fellowship of other teachers."
"I like the continuous opportunity to learn."

Sufficient evidence was found for Lang to conclude that his hypotheses were supported :

> "The data supports the view that female elementary and secondary teachers differ in some aspects of their personality." (P.103)

Vertein (1961) obtained data from a study sample of 82 students at Wisconsin State College and Institute of Technology. Of this sample 45 were designated from their subject groupings as "non-academic", and 37 as "academic". The information collected was derived from

1. A 19 page booklet on personal-social characteristic, family background and current interest.
2. M.M.P.I's K. score (measuring emotional stability and attitude to the test).
3. M.T.A.I.
4. A 10-item attitude scale on the course and method of teaching.
5. The California test of Mental Maturity.

The only variable which need concern us particularly at present is the M.T.A.I. score which was 15.33 for the non-academic group and 32.03 for the academic group in 1957/58, but whereas the academic's score in 1959/60 was only 0.54 higher at 32.57 the non-academics had almost doubled their original score to 30.25.

There was also a general degree of agreement between attitude, as measured by the M.T.A.I. and Total Grade Point Average with correlation of 0.32 and also with General Education Point Average when r = 0.36 was obtained.

Reed (1961) investigated the teacher variables of Warmth, Demand and Utilization of Intrinsic motivation with 1045 pupils taught science by 38 teachers in 19 schools. In spite of differences with respect to certain teachers and schools there was general agreement that, on the basis of a 72-item Science Inventory Questionnaire and a 42-item Teach Behaviour Inventory the majority of pupils agree in their view of the teacher. Furthermore, a positive link was found between the "warmth" of the teacher and the degree of motivation experienced by the pupils.

A study which is of special interest because it used the idea of looking at differences was that by Freehill (1963) who used contrasting criterion groups. From the records of the Western Washington College of Education the 30 'best' and 'worst' teachers were studied on the basis of :-

1. Endurance test data.
2. College Academic Record.
3. Deans' social and community reports.

The college assessments were then related to 'expert' ratings in the first year of teaching and during the fifth year of teaching. A high degree of relationship was discovered between these later assessments by the school principals and college entrance test scores, academic performance and social participation and attitude with coefficients ranging from 0.52 to 9.70.

To what extent the judgement of experts is in agreement with that of one's fellows is one which is examined in the present research (P.404). Bentley and Rempel (1963) examined this in relation to a measure of teachers' morale. Five hundred and

seventy teachers in twenty-two Indiana high schools completed a 157-item instrument designed to measure 'morale'. When the scores on this were related to the scores of pairs who were asked to identify 'high' and 'low' morale groups, little correspondence was discovered. But when the scores on the instrument were related to the judgements of experts, generally most of the items succeeded in making a satisfactory discrimination.

An examination of the factors involved in assessing the dimensions of Teacher behaviour, based on questionnaires administered to twenty-four evening class teachers from thirteen colleges and Universities as well as to their students, and on analysis of ratings made at two sessions of the classes by trained observers who also had recordings at their disposal was carried out by Solomon, Bezdek and Rosenberg (1964). The eight factors extracted were identified as follows:-

1. Permissiveness v. control.
2. Lethargy v. energy.
3. Aggressiveness v. protectiveness.
4. Obscurity, vagueness v. clarity, protectiveness.
5. Encouragement of (factual) students participation v. non-encouragement: emphasis on student growth.
6. Dryness v. flamboyance.
7. Encouragement of student participation v. lecturing.
8. Warmth v. coldness.

The number of teachers in this sample is relatively small and it is possible that the characteristics of a few teachers may have loomed large : a factor analysis was then undertaken based on a hundred and seventy-one prospective teachers' responses to an inventory designed to measure four hypothetical leadership styles. These were designated as :-

1. Impersonal.
2. Self-sufficient.
3. Counselling.
4. Integrative.

but analysis of 72 paired comparison tests by both principal components and varimax solutions produced a multiplicity of small factors, which suggested that the leadership quality in teaching could not be adequately accounted for in terms of one of the four styles designated.

Since there is a common element in the researches it may be more convenient to discuss that of Sorenson, Husek and Yu (1963) with that of Solomon, Bezdek and Rosenberg rather than elsewhere. In their research Sorenson in all discussed six possible teaching roles :-

1. Advisor
2. Information giver
3. Counsellor
4. Motivator
5. Disciplinarian
6. Referrer.

A Teacher Practices Questionnaire was constructed in which thirty problem situations were posed with different solutions representing one or other of these roles. This was administered to 284 prospective teachers and the resulting factor analysis appears to have confirmed most of these categories, except that the first two were eliminated though it was indicated that they might be inter-related.

Amongst the most recent researches into teacher attitudes are those by Burkhard and Tarpey. Sister Burkhard (1965) administered the M.T.A.I. to "30 religious women" (sic, P.228) teaching in parochial grade and high schools who had been rated by their pupils on Amatora's Diagnostic Teacher - Pupil Rating Scale. Little overall general agreement was found between the teachers scored in the extreme categories of high and low on this scale when a comparison was made with M.T.A.I. scores.

Sister Tarpey (1965) administered a battery of five instruments to one hundred and twenty eight students in four training colleges. These consisted of :-

1. Cattell's 16 P.F. questionnaire.
2. A.H.5. Group Intelligence Test.
3. M.T.A.I.
4. Kuder Preference Record - vocational.
5. Motives for teaching questionnaire.

A variety of relationships was discovered for the various colleges some of which are discussed elsewhere (P. 97). For the present it may be said that in two of the four colleges a significantly positive correlation was found between the final teaching marks and attitude to teaching measured by the M.T.A.I. as follows:-

Coll. 2. N. = 31 r = + .434.
,, 3. N. = 39 r = + .330

At the same time it was noted that the scores on this scale were lower than those given by the U.S.A. normes.

In Tarpey's study data was collected from several colleges. In a number of other studies of attitudes the same procedure is followed and when possible changes in this are considered, it is fairly general practice to adopt the policy of testing two groups at the beginning and at the end of the course. Although, in terms of experimental design it can be argued that the groups may be randomly selected and hence that, by chance, there should be no differences between them, except that which can be attributed to the effects of the course or other relevant experience , it would be more accurate to recognize that differences may occur between randomly selected groups by chance, as well as by the effects of the experiences which are hypothetically the cause of the observed differences. Moreover the groups being different in time and space almost certainly experience large differences in treatment, both

in terms of subject content, teaching time and staffing, study facilities and so on.

Butcher (1965) studied three hundred subjects including serving teachers, training college students and postgraduate training department students who were administered attitude scales measuring naturalism, radicalism and tendermindedness in education.

Analysis of the data confirmed the hypothisis that the students as a whole had attitudes which were more naturalist, radical and tenderminded than the experienced teachers although the difference between the training college students and the serving teachers was not significant. The students as a whole appeared to have a looser structure of attitudes as deduced from the relatively low inter-correlation of items in their sample than had the serving teachers who also combined a stricter attitude on moral and disciplinary matters with a more progressive one on questions of curriculum and method.

Butcher also examined changes within the student group in time and discovered that two of the three groups re-tested after a year showed significant changes in attitude towards greater naturalism, radicalism and tendermindedness. Interpreting the results as a whole it is argued that attitudes to education are more closely related to the effects of education, indoctrination and experience than to sex or age. Furthermore, to the sorrow of those engaged in teacher training but confirming what is all too often noted in practice, changes in attitude during training may be reversed after experience of full time teaching.

CHAPTER ~~VIII~~ X

THE SELECTION OF STUDENTS FOR TEACHER TRAINING

Whilst there is little contention about the need for a process of selection for entry to any scheme of preparation for teaching, there is little agreement as to the best form of ~~the~~ selection or, when there is a measure of agreement with regard to certain instruments, with the manner in which they should be used and the reliance which should be placed upon data derived from them. The best known example of this is the interview but the value of academic results or personality assessments are about as contentious. The interview differs from most of the other possible methods of selection in that most responsible opinion tends to place some reliance upon one or other method of 'face-to-face' assessment and regards it as an essential element in the process. It may well be that, in part at least, a minimum level of academic attainment is required by colleges before applications can be considered and that the interview itself is able to assess at least the outward aspects of the candidate's personality. ~~(The problems arising from this are dealt with elsewhere)~~.

Using a fairly small sample of 49 men students, Panton (1934) obtained ratings on a number of qualities including speech, personal appearance, initiative, leadership, sociability and humour, and correlation coefficients with teaching marks ranging from 0.32 to 0.67, although different means and distribution were obtained from different colleges. Without going further back in the literature in this section since selection cannot be assessed except against some criterion and both the criteria and methods of assessment constitute the main theme of the entire section, it may be readily seen that this is fairly typical in that most reasons selected as hypothetical predictors of teaching success, whenever these are made on a common sense basis, tend to produce positive but low and frequently insignificant correlations. Even when a statistical level of significance is obtained the coefficient

of alienation generally indicates that the relationship is far too tenuous for any practical reliance to be placed upon it.

In reviewing the literature relating to the selection of teachers Archer (1946) notes definite trends towards recruiting individuals who are considered to have the intellectual and personal qualifications of good teachers as well as the use of personality as a criterion of teaching success. The actual process of selection is generally considered in relation to a group which has already been selected and most research programmes consider the data derived from selection as one of a considerable number of elements in the research design. Burroughs (1951) concentrates upon the single element of selection and points out that the forces operating may be considered according to:-

1. The people being selected
2. What they are being selected for.
3. The means used to select them.

As well as reviewing the literature relating to assessments of teaching ability in terms of those such as Cattell, Barr, Eliassen and Martin, Rostker, Bishop, Lewis and Von Haden who have looked at traits necessary in a successful teacher - those like Tongerson, Barr and Brookows Tongerson and Lewis who used tests and those like Burt, Cattell and Eysenck who have sought to break personality into elements which could be used in selection - Burroughs also considers the handful of studies of teacher traits which have used Factor Analysis. After reviewing methods of selection generally he concentrates upon the interview as the main theme of his study.

It is not proposed to cover in detail all the ground covered so thoroughly by Burroughs in studying the interview as a means of selection, for his review ranges from Hartog and Rhodes' demonstration of the fallibility of experts at University level to Newman, Bobbit and Cameron's work on selecting prospective coastguards and Rafferty

and Deemer's factorial analysis of psychiatric studies of 389 flying cadets. At the same time it would be invidious not to look in some detail at the experimental work carried out by Burroughs himself on the selection interview for entry to the course of professional training at Birmingham.

The established pattern was for panels of interviewers to rate applicants for twenty minutes on a collection of twenty traits, each on a five point scale. These were as follows:-

1. Interests
2. School Activities
3. Physical Activities
4. Physical Bearing
5. Dialect
6. Voice Quality
7. Powers of Expression
8. General Appearance
9. Personal Adjustment
10. Adjustment to Interviewers
11. Sense of vocation
12. Suitability for Teaching.

In the initial analysis data from 420 applicants was taken normalized and a centroid analysis undertaken. After rotation. three factors were extracted:-

I The externals of personality or culture (5,8,6,4,);
II All round Teaching Suitability (10,12,7,11,1,9,);
III School and class Activities.

Data derived from headteachers' reports on 196 applicants to the University training department in 1961 was also analysed and from the eight categories three factors were again extracted, identified as:-

I Well-balanced athletic and social type.
II Leadership aspect of teaching.
III Well-balanced intellectual type.

When a further analysis was carried out on the data derived from three cognitive tests 4 main orthogonal factors emerged and 1 minor one.

These were labelled:-

I Interview performance
II Head Teacher's Report Performance
III Test performance
IV Social Acceptability
(V Emotional and Physical Balance)

It is interesting to note that only in Factors IV and V was there any overlap between Headteachers and Interviewers and this was mainly where attention was devoted to the externals of behaviour and appearance: the mental test performances failed to overlap anything.

Burroughs then proceeded to develop his study by concentrating on further factorial analysis of data derived from interviewing 6 candidates in turn by each of 6 interviewers and from a battery of tests, examination results and miniature real life paper and pencil tests.

In concluding his analysis Burroughs indicated that the main forces operating at the interview stage were:-

1. Estimates of teaching ability : based on non-cognitive traits : enthusiasm for the job, cheerfulness and pleasantness, sincerity and sensitivity.
2. Superficial aspects of personality resulting from local culture : speech, manner and appearance.
3. Acceptability at school : the good mixer and social companion - not simply one who participates; the 'modest hero' well liked by fellows and staff.
4. Performance on tests : provides different evidence from the interview or Head's report.
5. Maturity and scholarship : which appears to be a minor determinant of teaching suitability.

During these experiments the usual trends were observed : the tendency to rate towards the more favourable end of the scale and in the case of the assessment of suitability to produce a bimodal distribution by rating 'the good as better : the bad as worse'. There was also much closer agreement within interview panels than between interview panels with regard to the merits of any particular candidate. In explaining this Burroughs (P.182) draws on Lewis's conception of a field of forces and this is created whenever a

candidate appears before an interview panel :

> "The candidate's behaviour which is a clue to his personality is largely a product of the situation in which he finds himself and different aspects of it in different situations may similarly appear unrelated."

Skinner (1947) had likewise concluded from his "Investigation of Factors useful in predicting Teaching Ability" that "Personality appears to be the most important central factor to be estimated in predicting teaching ability". (P.82). In his investigation, 125 R.A.F. personnel training under the Educational and Vocational Training Scheme in 1944-45 were measured on 35 qualities and factors by means of individual interviews, group tests and rating scales of whom 50 completed the whole series. Twenty 'factors' were found to have a significant correlation beyond the 5% level with r's ranging from +0.347 to +0.721 for subjects numbering between 50 and 112 with the mark of teaching ability of the short course R.A.F. Education and Vocational Instructors Training school being taken as the criterion. Conclusions derived from factor analysis of the coefficients included the following :-

> "This total teaching personality may conveniently be recognised as comprised of two constellations of personality traits, of which the primary group centres around initiative, self confidence, adaptability and group activities, while the secondary involves responsibility, energy and perseverence."(P.82)

The first group of traits was thought likely to correlate higher than + 0.6 with future teaching ability : the latter group +0.5 with the same criterion. With regard to the single traits of personality considered, initiative and self confidence are singled out for special mention as being the most valuable for forecasting teaching ability, while leadership, rather than wide participation in group activities, is considered to be a useful indicator. Whilst 'intelligence' in a group already selected academically' does not appear to play an important

part in predicting teaching ability", (P.83) educational achievement- assessed by the interviewer - is considered likely to prove at least of equal importance to the secondary constellation of personality traits in forecasting teaching ability. The interviewer is also seen as able to produce a useful indicator of the ability from assessing the candidate's speech.

Thus, the interview is found by Skinner to be useful in predicting teaching ability if it is used to assess general speech, educational achievements and personality : when suitably weighted r = 0.62. When the number of trait ratings of character and leadership is raised to 10 then the r with teaching marks becomes + 0.74.

The point made by Skinner regarding the intelligence of a selected group not contributing very much to an estimate of teaching ability is made by a number of other researchers including Lovell (1951); Vernon (1939) found little relationship between teaching skill and verbal and non-verbal intelligence scores, whilst Pemsett is cited by Lawton (1939) as failing to find any significant connection between either abilities as measured by intelligence tests or academic records and teaching grades of University students. Yet in his own study Lawton obtained an r + 0.48 between academic examinations and teaching grades, attributing this, speculatively, to intelligence, perseverance and specific interest amongst other reasons.

Phillips (1953) examined the relationship between Intelligence scores, English scores and those on a personality test of his own construction, derived from a sample of fifty six students. Only two of the resulting six intercorrelations with the teaching mark were found to be significant : the Intelligence and English scores r = 0.679 and, contrary to the experience of most researchers, a correlation of 0.505 was obtained between the Personality Test and Teaching Score.

The explanation for the high 'r' for the last two variables is given by Phillips in that the score is an indication of a "teaching personality" not a measurement of individual traits as used by most other researchers. (The personality score is derived from subjective classification into three categories of responses to ten (later 9 only were used) questions relating to a visually perceived stimulus :- a picture of "A little boy with books seated alongside a pool and a young man seated with coat and books on a book-case).

When the combined battery, after weighting, was used, a significant improvement in correlation was found over the use of the Personality Test alone. ~~(See also p 52 etseq).~~

It is widely recognized that when a given group is selected, its performance is likely to vary considerably : not only do some whole year groups perform below and others above expectation, within the group, individuals are likely to excel whilst others will do poorly. Using this fact Mann (1961) took two contrasting criterion groups of 40 at the extreme levels of performance in both teaching practice and academic success and examined them with regard to a considerable number of variables. These were grouped under the following five main headings :-

1. Home Background, health, physique.
2. Educational Background.
3. Personality.
4. Social Factors.
5. Academic and teaching performance in college.

Despite the fact that the groups were homogenous in so far as they were training college applicants and expected to have a high level of academic attainment, as measured by school reports and G.C.E. examination results, as well as being screened by reference to records and testimonials from heads and being personally interviewed -

"Despite these carefully considered and controlled measures one of the many problems facing those responsible for the selection and training of teachers is the wide variability in the level of performance of students in both academic studies and practical teaching during the college course."

In this investigation Mann discovered no less than 67 variables on which the two groups were significantly different.

A more profound and far reaching investigation with a sample of 100 students at Manchester University Department of Education during 1957-58 was undertaken by Warburton, Butcher and Forrest (1963). Data was collected from a range of measures of abilities, personality, interests, values and general culture and related to that derived from college results in theoretical and practical work. In all 57 test scores, 25 sets of biographical particulars and 18 criteria of success were used. Yet of the 177 correlations between the test scores and the 3 main criteria only 22 (13%) were found to be significant.

In this study academic performance as measured by degree class was found to be the best predictor of the final theory mark and of the final certificate grade (as measured on a five point scale); positive correlations at a significant level were obtained with final theory results for each of the following groups of variables :-

1. cognitive test scores
2. personality measures
3. studies of values
4. attitudes
5. attitudes to education measures.

The only successful predictor of Teaching Ability was on Cattell's 16 P.F. questionnaire.

Self Control Q.3.
Conscientiousness G.
Sensibility I.

It was this instrument, moreover, which alone predicted teaching results better than theory ones.

Another research to concentrate upon "Personality Factors in Teaching Trainee Selection" is that of Tarpey (1965) although the

students had already been selected as in the majority of the other studies. A total of 128 students drawn from 4 training colleges completed a battery of five tests. These were :-

1. Cattell's 16 P.F.
2. A.H.5. Group Intelligence Test.
3. M.T.A.I.
4. Kuder Preference Record - vocational.
5. A questionnaire on motives for entering upon teaching as a career.

These produced twenty-seven measures which were then correlated with each other and the criterion Teaching Mark.

In none of the colleges did Sister Tarpey find a significant relationship between the intelligence score and the teaching mark and in only one college was such a relationship found, between personality factors and the teaching mark. In this institution Cattell's Factor G. was found to produce the highest coefficient with r = +0.446 while

Cattell's 16 P.F:	A = -0.442	
,, ,,	H = -0.408	
,, ,,	M = -0.372	(28 students)

The Minnesota Teacher Attitude Inventory was found to produce positive correlations with teaching in all four colleges, in two cases at a significant level.

N = 31 r = + 0.434
N = 39 r = + 0.330

In concluding her account she agrees that while it is possible that the tests themselves are not good predictors, since they appear to be normal and expected, then the basic criterion of the teaching work is itself an unreliable statistical measure.

In a study by Jenkins(1967) a sample consisting of 255 men and women students at Cardiff College of Education was studied over a three year period. A battery of personality,

tests was employed. This included Cattell's 16.P.F., Eysenck's Personality Inventory, the M.T.A.I., together with sevweral measures of verbal and non-verbal intelligence. The Pitts' Emotional Maturity Scale was also employed.

The personality measures, together with the initial interview grades and personal data, age , sex, socio-economic and sociometric datawere considered as predictor variables. These were correlated with a series of criterion variables taken to measure actual academic and practical teaching performance. These consisted of results in core courses in English, mathematics and education as well as in teaching during and at the end of the courses.

As well as the correlational analysis on a total of 91 variables a discrimination analyses technique was used. On the basis of high or low scores on personality or performance measures the top ten and the bottom ten percent of students were identified, taking one measure at a time. The scores of these same students on all the other measures were then considered and any observed differences were tested for significance.

From these analyses Jenkins found a number of positive and significant relationships between personality and performance measures. Restricting these to final performance assessments the following pattern emerged:

Criterion	Personality variable	r	Sig.
Final Education	Extraversion(EPI.)	.226	1 %
	Interview	.219	1 %
Final Teaching	Interview	.224	1 %
	Extraversion (EPI)	.137	5 %
	Superego strength	.121	5 %.

It was evident that the global assessment of personality was was more effective than many other of the methods used to

predict student performance. To some extent this may be be explained because interviewers had access to past academic performance scores and these were found to be positively related at a significant level with subsequent performances.

AGREEMENT BETWEEN DIFFERENT ESTIMATES OF TEACHING ABILITY

Having considered in the previous sections some of the various divergent views expressed about teaching ability and the characteristics of good teachers, as well as some of the various ways in which attempts have been made to estimate this ability, we now turn to studies which have attempted to measure the extent of the agreement or otherwise between the various assessments.

Church (1919) anticipated Vernon (1953) by pointing out that since the teaching situation is a complex one many types of people may be successful in the wide variety of situations which occur in teaching. It is not surprising that we may expect conflicting evidence in this section as well for, as Buckingham (1923) pointed out, many researchers fail to calculate the number of children who are taught well by a given teacher, and moreover this may be a factor which varies from one teacher to another.

Hill (1921) used pupil gain as measured by the increase in standard scores on arithmetic, music and spelling from the first to the second semester as criteria of teaching success. These were correlated with supervisory ratings of 135 teachers and produced coefficients of .190, .240 and .450 for the Detroit, Gary and Winnetka samples respectively. The need was stressed for a cautious approach to the evaluation of supervisory ratings by means of the pupil gain criterion.

Knight (1922) used a sample of 156 teachers in three sample towns of Massachusetts who were assessed by supervisors' ratings as well as by fellow teachers and by a 'consensus of pupils' opinions. Other factors were also considered including such variables as age, salary, experience, intelligence, professional knowledge, in-service further qualifications and even handwriting. Not surprisingly this last variable produced a zero correlation between the composite teaching efficiency measure: the highest correlation was between the same

criterion and the test of professional technique score.

Somers (1923) compared ratings of 110 student teachers assessed by their supervisors while training and after a year of teaching, and related the assessments to results obtained on a battery of Information., Language and Reasoning Tests. A composite of personality ratings correlated 0.62 with teaching efficiency and the college teaching supervisors' grade correlated 0.70 with that awarded a year later. The highest rating of all, 0.77, was, however, obtained between the grade after a year's teaching and the subjects high school marks!

Boardman (1928) repeated most of the details of Knight's (1922) investigation (P.12) but used as his sample a group of 88 high school teachers. As before, the composite criterion of teaching efficiency was used, derived from supervisor, peer and pupil judgements and ratings varying from 0.26 to 0.39 were obtained: The three highest scores were on a Psychological Examination, a Professional Information Test and "a Test of Ability to Discriminate between procedures proposed as solutions of classroom problems in high schools". Boardman (1930) in a follow up study discovered that pupil liking for teachers was the largest factor in determining their judgement of the teacher's work. Correlations showed fellow-teachers and supervisors' ratings in closer agreement than any other measures.

Armentrout (1928) related ratings of 200 students on 16 traits given by their tutors to those given by superintendents after their first year of regular teaching. A percentage of agreement between the two sets ranging from 36.2 to 47.9 was obtained: the average, which is twice the chance expectancy, was 40.8.

Baird and Bates (1929) correlated the ratings on general merit, as well as eight other characteristics obtained from school principals, for 571 teachers with measures of reading growth of their pupils on standard reading tests. Although there was a high general agreement of the order of 0.500 or higher between the general merit rating and

the other ratings, the correlation between general rating and the pupil measures were only 0.135.

In his first reported research Shannon (1928) undertook a very extensive search for the characteristics of good teachers by analysing data derived from the following:-

1. Interviews with 97 supervisors covering the best and worst student ever supervised.
2. Student opinions on qualities of best and worst teachers.
3. Traits on 72 rating scales.
4. 5 sets of recommendations and recommendation forms.
5. Studies related to teacher failure.
6. "Traits considered in state certification plans, tenure laws and contract blanks".
7. Codes of ethics for teachers from 27 state teachers' associations.
8. Supervisor opinion of student teaching by questionnaire.
9. Supervisors' notes.
10. 73 traits classified by competent judges.
11. Reports by competent judges, teachers' self ratings and parents' idealized teacher images.

In spite of a considerable amount of disagreement in the variables, a few traits were discovered to occur in nearly every study as desirable qualities: these were followed by a second list which were a little less frequent or highly valued.

1.	Sympathy	Enthusiasm
	Judgement	Stimulative power
	Self control	Earnestness.
2.	Affability	Attention to own use of English
	Industriousness	Accuracy
	Voice adaptability	Alertness
	Forcefulness	Integrity
	Co-operativeness	Reliableness.

Shannon continued his persistent researches, certainly up to 1948, but to refer to all his work would occupy too much time and space since most of his work falls into the same general category of 'qualities of best and worst teachers' described above. Before leaving his work, it may be of particular interest to refer to his study of expert selection.

Shannon (1934) carefully selected ten administrative officers, professors and psychologists who were asked to select prospective teachers of merit. Neither visual inspection of the subjects nor a personal interview with them was found to enable those who received highest marks in practical teaching to be selected.

Flory (1930) extracted 25 personality traits from those put forward by 370 students as being the traits of successful teachers: when these were administered to 124 teachers to rate themselves on, a correlation of 0.52 was obtained with an average rating from 5 fellow teachers for each teacher.

In a descriptive study reported in the same year, Light (1930) found that the general ratings of 900 pupils for the best and worst teachers, after these had been ranked in order of merit, were substantially in agreement with those given by the school principal and superintendent. A similar kind of general statement, but this time in favour of pupils' estimates, was made by Flinn (1932) when she compared the assessments of 8 groups of students of their teachers with those of 4 principals and concluded,

> "The graphs seem to prove that the pupils' honest opinions are often a better basis for (a teacher's) self-study..... .....than are the opinions of a few supervisors".

An investigation cited by Ullman (1931) compared the ratings of competent judges (superintendents, principals or supervisors) for students in training and after at least one year's teaching. The correlation between the in-service grade and the student teaching mark was 0.36: between the former assessment and both the academic

mark and 'professional mark' the correlation was 0.30 while with the intelligence test score it dropped to 0.15.

After a number of previous attempts Betts (1935) published findings in support of a measuring system devised to assess the N S trait: this was described as "the difference between novice and superior teachers as measured by a battery of tests validated by data derived from a pair of contrasting criterion groups". The pupil achievement of 1214 pupils was correlated with the N S trait measure of their 54 teachers and, when the initial ability and age of the pupils was held constant, the coefficient was nearly six times its probable error.

Another researcher with an enormous number of publications to his credit is A.S. Barr. In one of his earlier studies Barr (1935) (not his earliest since there were nearly half a dozen in the previous decade!) investigated, among other things, the relationship between a variety of predictor variables, numbering in all 19, and 4 criteria given as composites on each of the following:-

1. Stanford Achievement Test:
2. Superintendent ratings of Teachers:
3. Teacher scores on 9 measures of qualities generally related to teaching success:
4. "A composite of these composites".

The correlations obtained were generally low and ranged from .35 down to 0.

A summary of studies carried out under the general direction of Professor Barr (1945) was followed by a broader review of the whole research field of teaching efficiency, Barr (1948). Nevertheless, most of the studies failed to yield a consistent pattern of agreement

between measures or were frequently concerned with only one aspect of teacher performance and did not look for this agreement. Without spending any more time we can note that Barr changed his ground, certainly in so far as his emphasis lay, as his experience of the field deepened. Then, in 1935, he said,

> "Changes produced in pupils, measured in terms of the objectives of education, is the ultimate criterion of teaching success".
>
> (Domes & Tiedeman 1950. P. 111)

By 1947 the assessment of teaching success was qualified by the assertion that

> "We must make some assumptions... (about pupils and aims in education as well as about the school and the teacher's contributions)... and from these work around to some definition of teaching efficiency and the prerequisites to efficiency."
>
> (Barr, (1947)

An indication of the area in which he was now thinking of framing his definition was given in his statement of the previous year, made in one of his reviews of the literature in the field,

> "The soundest measure of teaching efficiency with probably be found in the measures of the effect of teacher activity and leadership."
>
> (Barr, 1946)

Not surprisingly higher agreement has been found when less objective measures than pupil gain are used for comparison purposes. Thus Shannon (1936) found agreement on the Teaching efficiency of 111 teachers to range from 0.29 to 0.97 when they were rated in groups by informal means and by a score card method, and when both these and other assessments were made by graduate student observers.

In the study previously alluded to above (P.21.) Bryan (1937) compares the ratings given to teachers by pupils with those of administrators.

"These revealed that:

(a) the average ratings of groups of pupils are much more reliable than the ratings of a few administrators;

(b) the amount of agreement between the ratings of senior high school pupil groups and administrators seems to exist in proportion to the degree of personal contact that the administrators had with the teachers and pupils;

(c) On three items out of five, the average ratings of the junior high school principal and assistant principal agree more closely with the average ratings of the pupils than the ratings of the principal agree with those of the assistant principal;

(d) Administrators show more inclination than pupils to rate the same teacher about the same on all items."

In an experiment to discover whether students' observations and ratings of experienced teachers might assist the students in their preparation for teaching, Hulse (1940) found a reliability in the ratings given on two occasions of the order r = 0.75. While there was also general agreement between the ratings of the teachers given by the students and administrative officers the ratings of pairs of students for the same teacher were as high as 0.863.

Considerable mention has already been made of early studies (P. 17.) which canvassed pupil opinions and set these against those obtained from other sources. Such a device is often useful as part of a study. Albert (1941) devoted attention to this topic and canvassed 1528 pupils in San Antonia, Texas. They were asked to name the best liked and most beneficial teachers and to list their qualities. These were found to vary slightly but were, nevertheless, substantially in accord and were found to be reliable. At the same time they differed considerably from administrators' opinions which Albert argued was all the more reason for using those of pupils.

Flanagan (1941), like Albert, considered the views of pupils but was particularly concerned with relating supervisor ratings to Teacher scores on the National Teachers' Examinations. These assessments for a group of 49 teachers were found to produce a correlation of .51 which is significant beyond the 5% level. On the other hand, Ferguson and Hoyde (1942) concentrated on studying the effect of pupil opinion of teachers. A teacher was rated by his pupils and colleagues on twelve personality traits including speech and mannerisms. Age did not appear to influence the ratings to any considerable dgree, but fellow teachers tended to have a slightly better opinion of the teacher than did the pupils.

Using a rating scale to evaluate the pupil-teacher interaction Brookover (1940)obtained a correlation of 0.39 when this was related to the pupils' opinions of the effectiveness of their teachers' work. However, when the pupils' opinions of their teachers were related to those of administrators for the same teacher no significant correlation was found ($r_{\cdot} = 0.078$).

In a subsequent investigation, Brookover (1945) analysed the teaching ability of 66 history teachers in terms of pupil gain, superintendent's ratings, teacher age, teacher attitude and community role. Although none of the measures of the community role of the teacher was related to pupil gain those with the highest pupil interaction produced the least gain! Neither the teacher's attitude nor the views of superintendents regarding the quality of the teacher appear to be related to pupil gains in information. Most gain was produced by teachers up to the age of 38 and there was some inconclusive evidence to support the idea that pupils' views of a teacher's effectiveness are related to their own achievements.

An interesting point regarding the inter-personal relationship in evaluating teaching is brought out by Bush (1942) and Porter (1942).

In the former study 9 social studies teachers were rated on a ten-point scale by their 148 pupils as well as by their superintendents. There was a generally high agreement between the two groups but one teacher was rated exceptionally low by one student and the point was made that

> "There is a need for placing an individual student with a teacher who is best qualified to meet the student's need and with whom the student has most in common".

In Porter's study, practice teachers were scored on a check list by their pupils and supervisors. Generally there was good agreement between the views of the two groups, but the widest measure of disagreement was found with regard to teachers who were neither outstandingly good nor obviously weak in their teaching performances.

In reviewing the literature in this field, it is interesting to note the various factors which have attracted the particular attention of individual researchers as, for example, in the case of Henrikson (1943) it was the teacher's voice. In this study, teachers were rated by both a public school supervisor as well as a 'supervising critic teacher' on their voice quality as well as their teaching ability. The correlation between the two estimates of voice was 0.20 and for teaching ability, 0.34. That halo effect was present is suggested by the fact that the critic teachers' ratings of the two ratings reached 0.62, while for the supervisors it was as high as 0.58.

Against this we may quote Jayne (1945) who found a considerable source of variation when supervisors' verbal records were analysed: not only were they unreliable, but they had a low or even negative correlation with other criteria such as pupil gain. (The point has been made elsewhere that teachers who transmit most information are not necessarily considered the best by supervisors or pupils. (See Brookover (1945), P. above.)

Attention has also been paid previously (P.32) to the factors which may influence the pupils' gain of information apart from that which can be attributed to the influence of the teacher. Following the submission of his Doctor's Thesis in 1939, Rostker developed his thinking until he produced "a method for measuring teacher efficiency in terms of the portion of the gain in pupils' achievement which is independent of pupil differences in factors thought to affect pupil gains", Rostker (1942). Three years later the experimental conclusions were published. Supervisors' opinions of the teaching ability of 28 seventh and eighth grade teachers were correlated with adjusted scores obtained from 375 pupils on achievement tests. ("These adjustments were made on the basis of pupil differences in initial achievement, intelligence and socio-economic status by means of multiple regression.") (Rostker (1942)). Further measures of intelligence, achievement, attitude, adjustment and professional information were also made. Amongst the conclusions drawn were the following: Rostker(1945).

1. The intelligence of the teacher is the highest single factor conditioning teaching ability and remains so even when in combination with other teacher measures.
2. The social attitudes of social studies teachers is an important factor in teaching ability.
3. Teachers' attitudes towards teaching is significantly correlated with ability.
4. Knowledge of subject-matter and ability to diagnose and correct pupil mental maladjustment are each significantly associated with teaching ability.
5. The correlations between supervisory ratings of teachers and gains by pupils' scores are statistically insignificant.

And 6. Personality, as defined and measured in this investigation, shows no significant relationship to teaching ability.

Also working in Wisconsin and using similar measures to Rostker, Jones (1946) also failed to obtain a significant correlation between pupil gain measures and principals' ratings of teaching ability and found that "the rank in high school class is the best predictive measure of residual pupil gain".

Likewise Gotham (1945) in the study previously alluded to (P.29) had failed to discover significant levels of correlation between assessments of 57 rural school teachers on ratings of qualities of teachers, obtained in a number of ways, and pupil change in relation to the teaching of citizenship.

Further reference is made elsewhere to the Minnesota Teacher Attitude Inventory

In a report on their work on its construction Cook, Leeds and Carroll (1947) described how after two samples of 100 teachers, selected as contrasting criterion groups on the basis of their principal's judgement of the quality of their working relations with their pupils, were used to select the items for the complete inventory, the scores obtained from a third sample of 100 teachers were correlated with ratings of the effectiveness of the teachers made by their pupils, principals and Leeds, producing the following results:

Pupils	.46
Principals	.45
Leeds	.49

When combined with equal weights, the correlation of the composite judgements with the inventory was 0.60. The suggestion being, therefore, that there was an instrument which agreed with other general assessments of teacher efficiency at a high level, a general conclusion which has not been borne out by most subsequent research, as witness Evans (1958) and the results of the present investigation support. At the same time some of the reports are not conclusive for some researches find the M.T.A.I. does provide useful information e.g. Herbert and Turnbull (1963), but the doubt remains for Tarpey (1965) found a positive significant

correlation in only two of her sample of four schools between the Inventory and the final teaching mark.

Since factor-analytic techniques have identified introversion and neuroticism as perhaps the two most important non-cognitive dimensions of personality, repeated attempts have been made to relate either or both to performance in education. Furneaux(1956), Kelvin et al. (1965) and Kline (1966) claim to have established relationships between both factors and student performances. Bendig(1960), Jenkins(1967), Savage(1962) and Enwistle and Entwistle (1970) find a relationship between introversion-extroversion and performance. Yet others such as Cortis (1969) and Kline and Gale (1971) failed to find confirmation of such a relationship.

It seems probable that some of the variability in the results obtained stems from the complexity of the personality factors which we attempt to study. Some of it must surely lie in the variability of our measures of performance, whether these are examinations or other devices. In few areas can there be more room for variation than in the assessment of teaching ability.

Conclusion

We have seen that the notion of personality may be considered in many different ways. The assessment of performance in education generally, and in teaching in particular, is a far more complex process than is often thought. Although there exists a general idea of 'a good teacher' people have quite different and sometimes conflicting views as to which individuals should be described in this way.

Teaching does not occur in a social vacuum but in a context of social change (Jenkins and Jenkins (1969). Moreover it is clear that students entering even the same specialist field of teaching will have quite distinct conceptions of their roles as teachers, and these will also be influenced by the pressure of the institutions in which they train (Jenkins 1971).

Once a teacher has qualified the people who have the clearest opportunity to see the exercise of his skill at first hand are his pupils. Once colleagues, the headteacher, advisers, inspectors or others enter the room the situation is altered however subtly. Some pupils and teachers may be stimulated to perform better than usual while others will do less well. Yet it would be foolish to rely solely upon the estimates of pupils. With more senior pupils and students their opinion might well be taken as one factor in the assessment of teaching performance.

At the training stage one can find statements of the factors which are taken into account in the assessment of teaching performance. These will tend to vary from one college to another and have tended to become somewhat less rigid than was formerly the case with more flexible methods

of learning and teaching employed. Basically the assessments cover the following areas:

1. Preparation of material , notes apparatus and other aids relevant to the specific lesson.
2. Clear aims and a logical progression towards their achievement.
3. Technical command of the material.
4. Competence in organizing the work.
5. Relationship with pupils.
6. Personal qualities and skills, for example, posture, voice, language and use of questions.

Although the areas tend to overlap they do seek to take account various aspects of the situation. Whatever the differences in format the points covered generally include preparation, specific objectives, competence in handling the material and various personality qualities. Although it is possible to subdivide the elements to be assessed and to represent these on a profile, most asssessments are reduced to a simple grade on an A-E scale or sometimes one extended with intervening pluses and minuses. (1)

Two defects in the system of teaching assessment persist in addition to that referred to concerning the artificiality of the situation where assessors 'sit in' on a lesson. These relate to the meaning of the grade and the way it is obtained.

Most college grades given at the end of the training course for teachers represent an assessment of the standard of performance in the work of the course. To some extent it is inevitable that this should include an element of personality assessment as well. But what is uncertain is the extent to which expectations about future performance are allowed to colour the assessments. Some teachers will have

(1) See Anders-Richards (1972) for a review of "Teaching Practice Assessment Procedures."

reached the peak of their potential with the support of their college . Some will remain at this level while others will deteriorate. One would expect that the majority would continue to develop with greater maturity as well as experience. Whatever the outcome it will depend very much on individual differences and the chance combination of circumstances. In short the predictive power of a teaching grade obtained at the end of training appears to be very limited and where a relationship is found between it and subsequent performance, this may well be because of the power of the self-fulfilling prophecy.

The second criticism relates to the way in which assessments are carried out sometimes. Frequently considerable pains are taken to eliminate the possibility of personality clashes and prejudice in the assessment of students. They may be seen as a matter of routine by several people and in the case of borderline students specialists from several subject areas may be involved. The problem really exists when standard between colleges are moderated by an external examiner.

In some colleges an exceedingly thorough system of internal assessment of student-teacher performance has been evolved. This can mean that the tutors are sorted into groups and the standards of their assessments of the students' teaching is moderated by a group of senior staff who see a sample of lessons together with a given tutor. The moderators are themselves moderated by a senior member of staff. This is clearly a demanding and time-consuming process which really strives to obtain a fair system of internal standards. Its inherent weakness is that because two members of staff agree that a given lesson's standard is B, it does not follow that they would then agree on what is a C or an A standard lesson for the same student and certainly not for a different student.

However, these imperfections are less important than what happens on occasion with external examiners, who in effect act as moderators in maintaining comparability of standards between establishments. The procedure varies with some colleges telling students that they are to be seen by the examiner while others keep this secret. Because special arrangements are sometimes required, or because ~~they~~ someone wishes to be kind ~~those in the school will sometimes break the news~~. The information will sometimes be passed on to the student. The situation is not completely uniform however. Moreover the variety of personal reactions to the visit will be as wide as the personality composition of the individuals involved.

To a very large extent the problems are reduced because those involved in making assessments are well aware of the variability of the situation and the personal factors involved. Moreover the decisions become critical only at the point where borderline candidates are involved.

Where the whole situation becomes a rather elaborate charade is where external examiners, on the basis of a single lesson assessment change the grades given by the college. If these changes are in a consistent direction it might be right to assume that the standard of the college are too high, or too low, compared with those of other colleges. It should then be possible to scale the other grades according to the advice of the external examiner. This would be the case as well if the distribution of grades ~~was~~ were too wide, too narrow, or skewed. All too often it appears that external examiners are satisfied to change the grades of students they have seen teach. (We are not concerned here with theory grade although the same general principle applies). Basically all that is required is for the external examiner

to agree upon the standards of specific lessons seen by him and a college moderator. Only where there are acute divergences in standards, or in the distribution of total grades, should it be necessary for regrading to take place. Everyone who has been involved in teacher training work for any time is likely to have experienced two kinds of situation. On the one hand, the very poor student who has consistently performed badly who produces a single good lesson for the external examiner, or the student of distinction calibre who goes to pieces in his presence.

Apart from recourse to others, how can a student or indeed a teacher improve upon his teaching performance? Clearly, reference to others in some form is desirable, if only because human beings vary in the capacity which they have for self-deception. Some over-estimate their performance whilst others underestimate it.

Nevertheless, one way to improve performance in this field, as in others, is to attempt to examine the position dispassionately. Firstly, what goals are being sought in the situation? Secondly, to what extent are they being realized? Once it is recognized that certain objectives are desirable, but have yet to be reached, then frequently steps can be taken to bring about the desired outcome: sometimes this will necessitate the establishment of enabling goals.

A frequently encountered situation is where the teacher has difficulty with a particular class. It is no remedy to write off the class as hostile, although in certain extreme cases a change of teacher may be the only real solution.

Where a teacher faces a group or class of antipathetic or rebellious pupils, then given that he has a contractual and professional obligation to teach, he has to find a solution to the problem. While he may contain the situation by coercive measures, any long term improvement must depend upon a course of action which will ameliorate the situation. Usually this will involve displaying a degree of sympathy and demonstrating an understanding for others' point of view. The final step is to try and deliberately to motivate learning, by making one's own teaching performance as interesting and relevant as possible to the perceived need of pupils and involving them actively in the work.

Certain individuals are less thick-skinned than others. As teachers generally are aware, although they may succeed in establishing good relations with most individual pupils, on occasion they are ~~aware~~ conscious of incurring a degree of hostility, even before they have really started to teach certain individuals. The more sensitive teacher may be seriously hurt by such a reception. Unfortunately it is a fact of life, that some people take a liking or disliking to others at sight. One day this may be explained in terms of micro-sensory perceptions, but at present it appears that the explanation depends upon pigeon-hole typing. Because we have certain characteristics of age, sex, appearance, accent or other feature which cause us to resemble another person, with whom the pupil may have had unfortunate experience, we may find ourselves the recipients of the transferred hostility. Fortunately such initial reactions can be overcome if one is prepared to make the effort.

When an actual personality clash occurs it is sometimes possible to make an oblique approach to improving relationships.

It can involve no more than addressing direct remarks to the individual concerned, making an observation, asking a question, or extending an invitation which can be construed as a symbolic overture of friendship. It is rather important that the overture should be indirect, or alternatively that the teacher making it should be prepared for an initial rebuff, for otherwise the relationship could be further impaired. In this situation the mature personality must be prepared for some slights if that of the less mature student is to be helped develop.

It is therefore suggested that really effective teaching requires a loving or caring relationship. By this it is not intended to suggest that the sloppy, sentimental person would make an effective teacher, on the contrary. It is argued, ~~that~~ given adequate knowledge of the subject and expertise in certain techniques appropriate to dealing with it, in relation to the capacities and maturity of the learners, that personality qualities will determine the quality, as well as the extent of the learning that takes place. All teaching involves a degree of emotional dialogue, except in narrowly prescribed training situations. It may only become apparent that this is so where there is an extremely good or bad relationship between teacher and class.

A practical difficulty that many conscientious young teachers face is that of role playing. They feel that they are insincere if they are not themselves in teaching. Unfortunately, although pupils tend to be quick at spotting insincerity, ~~unless an effort is made~~ the personality of an individual teacher may have little impact in the teaching situation unless the effort is made to project one's personality, or to make it larger than life. The fact that one is sincere, and genuinely interested in one's subject and pupils, will be apparent when this done.

As education represents such a massive economic in both capital and in human terms, the problem of identifying the crucial personality qualities necessary for effective teaching must be faced. Although we can recognize pleasing personalities, in some instances, not everyone will share our view: it appears to be the case that in teaching certainly, as in the choice of marriage partners, beauty is in the eye of the beholder. This applies whether we are assessing personality qualities, or whether we are looking at teaching performance. It is also clear that the person that we ourselves recognize as having desirable personality qualities may not necessarily be an effective teacher, although as was argued previously, the two are generally inclined to be found to go together. (cf. Stones and Morris 1972).

As well as the economic argument it is clearly most desirable that poor teachers should not be permitted to continue to teach at an ineffective level for what at present could amount to a period of some forty-five years. One solution must be to continue the search for those personal qualities which appear to be really essential to good teaching performance. At present it is unfortunately true to say, that, in spite of extensive research into personality structure and into various factors necessary for teaching success, our present state of knowledge is inadequate for specific generalizations to be made with any large degree of accuracy. Where statistically significant results have been found from empirical investigations, they have been too low to be of general application. Within specific situations they may however be perfectly valid.

Perhaps one advance which will be made will be to consider whether different personality qualities may work better in different teaching situations, taking into account the structure of the learning situation as well as the personal quality of the learner, the teacher and the criteria at present employed to measure these.

It may well be that we shall in due course find certain crucial personality characteristics amenable to assessment. Not only is it possible that they may have non-linear relationship with single measures of teaching performance, but it may also be the case that unique combinations of personality qualities are associated with effective performances in different kinds of teaching situations.

Intelligent observation shows that although there are different kinds of people in every situation, there may be some important differences between those attracted to teaching able and less able children, or to teaching in primary, secondary school or at university levels. The same may be said of teachers of different subjects. The classical Lewin, Lippitt and White study showed how youngsters performed in relation to different adult leadership styles. Perhaps it is not too much to believe that different teachers may find different teaching styles and roles suited to their particular personalities.

If this is so then clearly research may help to identify the personality qualities associated with particular and varied effective teaching performances. It holds out the hope that various kinds of people may be happily and effectively accommodated within one of a variety of teaching situations.

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